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The How's and Why's of International Cooperation in Outer Space International Legal Forms of Cooperation of States In Exploration and Use of Outer Space

Anastasia Voronina

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Introduction

International cooperation is an inherently complex concept. It can be analyzed from a legal, political, historical or socio-economic perspective. Each viewpoint would provide a reader with a different angle of analysis and probably stress the relative importance of one factor over the others differently. International cooperation in outer space has also been heavily influenced by the historical background to its development, the evolving political climate and the paths of development of science, technology, and the world economy. This book will focus on the legal analysis of international cooperation in the exploration and use of outer space, but because of the underlying complexity of the issues, historical, with political and socio-economic considerations, will also become a part of the present work.

The United States in 2012 proposed that the COPUOS Legal Subcommittee takes stock of the international mechanisms for cooperation in the peaceful uses of outer space.¹ The work plan titled "Review of the International Mechanisms of Cooperation in the Peaceful Exploration and Use of Outer Space" adopted as a five-year agenda item for the years 2013-2017, attempts to find effective mechanisms of international space cooperation, focusing "not only on the legal aspects of those mechanisms but also on practical issues, such as the reasons behind the development of such mechanisms and the benefits for States that acceded to them."² While the goals of this book and of the study undertaken by the COPUOS Legal Subcommittee are analogous, they are not identical.

The main goal of this book may be formulated as follows: to suggest the most appropriate and efficient forms of international cooperation available for addressing the respective specific sets of current and future categories of outer space activities. Continuing intensification of space activities would inevitably contribute to a greater scope and level of international cooperation. Advancements in space science and technology would prompt design of novel space projects that would necessitate the development of appropriate legal cooperative structures. Therefore, it is important to suggest forms of cooperation expected to be most successful in the achievement of

¹ A/AC.105/C.2/2012/CRP.21/Rev.1

² Report of the Legal Subcommittee on its fifty-fourth session, held in Vienna from 8 to 19 April 2013, A/AC.105/1045, para. 168.

various cooperative goals, whether a future project envisions participation of a small group of States or the invitation of multiple actors.

In the achievement of this goal, methods and mechanisms of cooperation used in modern international space cooperative endeavors will be analyzed. In the course of the present book, twelve mechanisms of international cooperation in outer space will be reviewed, whereas the analysis of each mechanism will focus on an institutional structure of cooperation and employed methods. Chapters two through five will address the universal mechanisms of cooperation, namely the Outer Space Treaty with three elaborating conventions, the United Nations Committee on Peaceful Uses of Outer Space and the UNISPACE conferences. Review of these three mechanisms will provide the reader with an extensive overview of the legal basis for cooperation in outer space. The majority of States accept these mechanisms as the foundation of cooperative network in outer space, and therefore, their analysis will create a solid basis for the ensuing analysis.

Next, two universal international organizations performing discreet functions in space activities will be reviewed. The International Telecommunication Union and the International Civil Aviation Organization do not specialize in outer space matters, but play an increasingly important role in the orderly regulation of outer space activities and therefore have to become a part of the analysis aiming to grasp the variety of approaches to cooperation in exploration and use of outer space.

The mechanisms of cooperation uniting a limited number of States and fulfilling rather limited goals are also of interest for the present analysis. The dynamics of cooperation as exhibited in a smaller group differ from those observed in a mechanism uniting many States. For one, the level and depth of cooperation in a smaller group tends to increase compared to larger groups. Further, cooperation within a smaller group of States often has institutional features reflecting idiosyncrasies of the analyzed mechanism, particularly of its membership and proclaimed goals. Cooperation in the International Space Station project, the Committee on Earth Observation Satellites, the COSPAS-SARSAT Programme and the Code of Conduct for Outer Space Activities are all notable examples of international space cooperation uniting a limited number of States. These four mechanisms differ significantly in the goals pursued in cooperation, and therefore, are excellent subjects for the present analysis, which strives to collect

and thereupon analyze a representative number of modern approaches to international space cooperation.

Regional cooperation is becoming increasingly important in most areas of international cooperation, and space cooperation is no exception. Although only a few regional space organizations have been created to date, the existing ones are worthy of in-depth analysis. Two organizations – the European Space Agency and the Commonwealth of Independent States – will be reviewed. They differ in many ways: in the history of their creation, in the composition, in the breadth of cooperation, in the depth of cooperation, and in many other respects. However, what unites them is the attempt to cooperate within a close-knit regional community to alleviate the technological and financial burden of outer space activities. The methods employed to achieve these goals will be at the center of the legal and institutional analysis of regional space cooperation.

Finally, an overview of bilateral space cooperation concludes the analysis. Bilateral practice of the United States and Russia will be reviewed, paying attention to the most recent changes introduced into bilateral space treaties of both States.

These mechanisms represent different levels and approaches to space cooperation: some are regional, others are multilateral, while others are perceived to be universal; the bilateral level of cooperation is also a part of the analysis. Acknowledging that some other, possibly interesting and influential mechanisms of cooperation are left out (such as on military cooperation, a subject matter of its own and hence presenting its own idiosyncrasies), it is nevertheless suggested that the list of mechanisms analyzed in the present book represents the general tendencies in international space cooperation in the second decade of the twenty-first century.

Methodologically, the analysis is premised on several assumptions. This book is not about doctrinally correct but practically inapplicable and thus easily spurned theory akin to the philosophical doctrine of Immanuel Kant; it is an argument about framing and method, about an approach to analyzing and evaluating mechanisms of cooperation in outer space, created by real people and utilized in a real world, today. At the core of the argument is that any analysis, and thus any proposed methodology depends on many matters that cannot be predicted in advance or expected to remain constant.

The first methodological assumption is that most mechanisms used in international cooperation may be designated to one of three categories: those of international organizations,

international treaties and international conferences respectively. Generally speaking, they run from the more institutionalized and more legally-binding to the less-institutionalized, less-legally binding and more political. Actually, moving even further to the political as opposed to institutional/legal side, a fourth separate category of cooperation – soft law – plays a major role in space law as well, and should also be taken into account in any comprehensive analysis of international cooperation in space. However, as will be explained in detail in the pertinent parts, this category, which embraces many informal and less formal mechanisms of cooperation, is too amorphous to be defined in conclusive terms. In the theory of international law, there is no consensus regarding the actual existence of such a category at all, less so regarding a universal definition of the category. In the absence of any precise, or close to precise, definition of the category, there consequently can be no set of criteria against which the respective mechanisms can be analyzed.

It should be noted here, moreover, that cooperation can also be classified along different lines. Does it concern cooperation in the regulatory area? That is, whether the main aim of cooperation is to establish regulatory rules or even 'soft law' rules of the road to better guide participating States' activities and provide for a measure of foreseeability. Or does it concern cooperation in certain projects or long-term programs? That is, whether the aim of cooperation requires a lot of specific contractual arrangements to make sure the project or program is not likely to give rise to insurmountable legal issues once under way. This dichotomy is perpendicular to the approach taken in this work, so it will not be used as a further distinguishing criterion at this stage, but at various places it will become clear that a cooperation category or mechanism operates in its peculiar way because of this dichotomy.

Only a methodologically sound analysis can produce reliable results. In the absence of any generally accepted criteria, understandings and definitions regarding the concept of 'soft law', no such results can be attained. Not to ignore their importance, issues of soft law play a role across several of the categories and mechanisms which are discussed in this work, but as it is not the goal of the present work to resolve the ambiguities regarding 'soft law', they are better addressed in those particular situations than by suggesting they form a category of their own distinguishable from the three being distinguished and analyzed.

The second methodological premise of the ensuing analysis is that fairly uniform definitions, or at least descriptions, of each of the three analyzed categories of cooperation have

been developed by the theory of international law. Based on this understanding, a set of criteria, which distinguish these three categories, will be used and adapted . These three categories are easily distinguishable using these criteria: membership/participation, secretariat, international legal personality, term of existence, binding force of documents produced, and existence of an opportunity to modify obligations.

Application of these criteria to any particular mechanism of cooperation will allow furthering the analysis of such a mechanism as belonging to one of the categories of cooperation and, in particular, allow for qualitative evaluations of their feasibility, effectiveness and overall success. Thus, application of these criteria will highlight the features of the pertinent category and each mechanism of cooperation. The results of application of those criteria will allow us to assess and evaluate the willingness to cooperate, the intensity of cooperation achievable and hence the feasibility of particular mechanisms of cooperation in particular circumstances. These results are also pertinent to the conclusions about the results that can be effectively achieved using the respective mechanism and category. What has been achieved so far? What is possible to achieve, and what is required to make it possible?

The main goal of the research, it should be recalled, is to propose the most appropriate *forms* of cooperation in the attainment of different goals in outer space activities. The term 'form of cooperation', therefore, should be distinguished from the terms 'mechanism' and 'category'. A form of cooperation is understood as a general denomination for mechanisms of cooperation that pursue substantially similar cooperative goals and possess an inextricable institutional connection. As the definition suggests, it is a way to group mechanisms of cooperation not because they possess identical legal features, but based on the broader notions of pursued goals and the legal and institutional connection between the mechanisms designated to the same form of cooperation.

The book is structured in fourteen chapters. The first chapter presents an overview of international cooperation of States in outer space. First, the legal basis for international cooperation is discussed, answering the general question of why States cooperate in their outer space activities. Analysis of both legally binding and non-binding documents, starting from the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space all the way through to the latest developments in space law, leads to the conclusion

that cooperation, though not mandatory in the exploration and use of outer space, is a desirable mode of behavior of States.

The second part of the chapter provides a brief legal and historical overview of international cooperation in outer space. The evolution of space cooperation, which began as a two-State confrontation in the advancement of their military powers, all the way to private companies' success in providing launching services for States commercially will be explored. The review of the changes that have taken place since the beginning of the space era, including the review of the evolution of the legal regime of international cooperation, of socio-economic and political factors leads to the conclusion that modern challenges in the exploration and use of outer space can be effectively addressed through international cooperation.

The concluding part of Chapter 1 elaborates on the methodology of the ensuing analysis. The methodological approach is explained and substantiated in greater detail. The phenomena of an international organization, treaty and conference are discussed and generic definitions of the three categories are provided. Next, each of the six proposed criteria of analysis is defined and further elaborated, and their respective relevance for the analysis is addressed. Finally, broad conclusions on the purposes of mechanisms falling into different categories of cooperation are offered, conditional to their further refinement in these chapters.

Chapters two through thirteen provide an extensive analysis of different mechanisms of international cooperation in outer space using the outlined methodology.

The concluding chapter is aimed at, first, providing a comprehensive summary of the book's findings, second, identifying forms of cooperation and elaborating their distinctive features, and, third, making proposals on the most effective forms of cooperation in the achievement of different cooperative goals.

Chapter 1. Overview of International Cooperation of States in Outer Space

International legal cooperation of States in outer space emerged almost immediately after the first space flight of Sputnik I on October 4, 1957. Unlike in many other areas, practical achievements in the exploration of outer space led to the creation of an international forum dealing exclusively with outer space related issues within a uniquely short period of time. On December 13, 1958 the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) was established initially as an *ad hoc* committee of the United Nations General Assembly by way of the General Assembly Resolution 1348 (XIII) on the "Questions of the Peaceful Use of Outer Space".¹ Hence, within a little over a year following the first space launch the first international mechanism of cooperation was already in place.

The interest in international legal cooperation in the area of outer space exploration and use might be explained in different ways. Only two States at that moment were technically capable of launching space objects, these two States were the main rivals in the Cold War, and there was the nature of outer space as an area above all States and presumably affecting all nations, though then accessible for only two. The factors probably combined to serve as an initial impetus toward the development of the mechanisms of cooperation. In ascertaining and describing patterns of international cooperation in outer space scholars look at the influence of science on international law development: "This new technology had inevitably led to changes in the law of international community, to the establishment of new international organizations and to the adaptation of existing organizations to treat the new issues."²

In the first part of this chapter the legal basis for cooperation will be explored. It has been suggested that international cooperation in exploration and use of outer space is still in its evolutionary process from policy to law, hence it is important to study legal issues pertaining to cooperation and acknowledge their importance for further development of international space law in general.³ Although in 1958 COPUOS was created almost in a legal vacuum, the 1963 Declaration⁴ and the 1967 Outer Space Treaty⁵ established a firm legal foundation for the

¹ Cf., Francis Lyall and Paul B. Larsen. Space law: A Treatise (2009), at 18.

² E.R.C. van Bogaert, Aspects of Space Law (1986), at 261.

³ See, L. Minwen, "Evolution from Policy towards Law: International Cooperation in the Peaceful Uses of Outer Space," in *Proceedings of the International Institute of Space Law 2013* (2014), at 622.

⁴ 1963 Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space

development of further cooperation. Non-specialized legal documents, including the United Nations Charter and the Declaration on Principles of International Law Concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations⁶ (1970 Declaration) will also be explored because of their enduring significance for the development of international law in general and international space law particularly. International legal cooperation in outer space as we know it today is based on the principles, maxims and goals established in the early days of outer space regulation.

In the second part of the chapter development of the mechanisms of international cooperation of States in outer space and the role of cooperation in outer space exploration and use for the years to come will be analyzed. The earliest forms of cooperation will be explored along with the modern mechanisms, paying attention to technological advancements, political processes and economic changes that spurred these developments. Although many mechanisms of cooperation created in the 1960s and the 1970s are still successfully fulfilling their purposes, there have been substantial changes that altered in many ways the initially created institutions. With the emergence of new issues, including commercialization of outer space activities, space debris threats, outer space militarization concerns and others, finding effective means of cooperation has become more relevant than ever.

In the concluding part of this chapter a basic set of criteria used to analyze every mechanism will be proposed. Unique challenges in legal regulation of exploration and use of outer space, particularly its intricate connection with the issues of national security and the extraordinary technical complexity of outer space activities, spurred creation of multiple mechanisms of cooperation, functioning on universal, regional and bilateral levels, dealing with broad and narrow areas of outer space exploitation, and focusing on legal regulation and technical coordination. In order to approach review and analysis of several currently existing mechanisms of cooperation, one needs a comprehensive and coherent methodology; the one used in this book is based on several criteria that can be used to distinguish between the three major categories of cooperation. The concluding part of the chapter will outline the methodology of the ensuing analysis and focus on identifying these criteria. Analysis of particular mechanisms in the

⁽GAR 1962), GA Res. 1962 (XVIII) / UN GAOR, 18th Sess., 1280th Mtg. / UN Doc. A/RES/18/1962 (1963). ⁵ 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 610 U.N.T.S. 205.

⁶ G.A. res. 2625, Annex, 25 UN GAOR, Supp. (No. 28), U.N. Doc. A/5217121 (1970), 121.

following chapters will focus on fact-specific legal characteristics of the mechanism under consideration.

1.1 Legal Basis for International Cooperation of States in Outer Space

Here the international legal documents that established the general legal regime of outer space and thereby created and cemented the foundation for future development of outer space cooperation will be analyzed. Presently hundreds of international treaties have been concluded, dozens of international organizations have been created, and although all these mechanisms cumulatively create the legal basis for international cooperation of States in outer space, this part will focus only on those documents that proved to be cornerstones of the international space law regime. The United Nations Charter⁷ and later the 1970 Declaration furnished a legal basis for cooperation in every area of international relations. Even in the absence of any specific provisions, the United Nations Charter is the starting point of any international legal analysis. Outer space is no exception.

The Outer Space Treaty has become the main pillar of international space law. It has laid down foundations for three elaborating conventions, and most of its provisions have ultimately evolved into an international custom – to the extent relevant for the theme of international cooperation, this will be further discussed as appropriate.⁸ In the present part of the book the Outer Space Treaty and the three elaborating conventions will be analyzed in the light of their role in creation of a legal basis for cooperation.⁹ This part is closed by an extended conclusion regarding a currently imposed legal obligation to cooperate in the exploration and use of outer space.

1.1.1 The Charter of the United Nations

As in any other area of international law, the United Nations Charter, having established

⁷ United Nations, *Charter of the United Nations*, 24 October 1945, 1 U.N.T.S. XVI, September 9, 2014, http://www.un.org/en/documents/charter/index.shtml.

⁸ M.P. Scharf, *Customary International Law in Times of Fundamental Change* (2013), at 58.

⁹ The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies will not be analyzed because it is not supported by spacefaring nations, and therefore presumably has little influence on development of cooperation mechanisms.

the general principles of international law, is the foundation of the outer space legal regime.¹⁰ Although at the time when the Charter was drafted and adopted prospective exploration of outer space was not on the agenda, the overarching nature of the document made it relevant even for this – at the time of drafting – nonexistent area of international law. Jenks noted at that time a persistent widespread impression that little of the Charter could have any application to outer space activities due to its earthbound character. He, though, accurately explained that a mere reading of the Charter sufficed to demonstrate that it was not so.¹¹ Sir Brownlie called attention to the danger of studying specialized areas of international law without regard to international law as a whole.¹²

In line with these points of view, the analysis will begin with the United Nations Charter as the basis for modern international law. Subsequent space law development heavily relied on the provisions of the United Nations Charter. The unanimously adopted Resolution 1962 "Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space" pronounced as one of the guiding principles that such activities should be carried on in accordance with international law including the United Nations Charter.¹³ The Outer Space Treaty in Article III similarly pronounces: "States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations."¹⁴

Articles 1, 2, 11, 13 and 56 of the United Nations Charter contain provisions regarding member States' obligations pertaining to cooperation. On the one hand, the United Nations Charter firmly established that cooperation is one of the vital activities of States in their pursuit of peace and security and in development in social, economic and human rights areas. On the other, the document has to be read as a whole and with regard to its object and purpose.¹⁵ If so

¹⁰ Каменецкая Е.П. Космос и международные организации: международно-правовые проблемы [Outer Space and International Organizations: International Legal Problems]. М., 1980. С. 16.; L. Minwen, "Evolution from Policy towards Law: International Cooperation in the Peaceful Uses of Outer Space," in *Proceedings of the International Institute of Space Law 2013* (2014), at 623.

¹¹ See, C.W. Jenks, Space Law (1965), at 207-08.

¹² I. Brownlie, "Problems of Specialization," in B. Cheng (ed.), *International Law: Teaching and Practice* (1982), at 109-113.

¹³ A/RES/1962(XVIII), A/PV.1280 13 Dec. 1963.

¹⁴ Art. III of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, done January 27, 1967, entered into force October 10, 1967. 610 U.N.T.S. 205, T.I.A.S. 6347, 18 U.S.T. 2410.

¹⁵ Article 31(1) of the Vienna Convention on the Law of Treaties, done May 23, 1969, entered into force January 27, 1980. 1155 U.N.T.S. 331, 8 I.L.M. 679.

read, the Charter does not *per se* prescribe cooperation in any area other than in the maintenance of international peace and security, as will be shown below.

Article 1 of the Charter enumerates four purposes of the organization, namely maintenance of international peace and security, development of friendly relations, achievement of international cooperation in solving international problems of an economic, social, cultural or humanitarian character, and creation of a center for harmonizing the actions of nations. It is still a matter of controversy whether the purposes as set forth in Article 1 are legally binding, but their place in the Charter and the legislative history of Article 1 point in the direction of qualifying the purposes as such.¹⁶

Only the first purpose does impose the obligation to cooperate, be it in form of action or inaction. It has been suggested that the first paragraph of Article 1 describes the essential 'Purpose' of the Organization, whereas the following paragraphs set out means designed to achieve this 'Purpose', albeit they are also purposes in their own right. More specifically, three following purposes are there to indicate that peace is more than the absence of war.¹⁷ The General Assembly has frequently emphasized the close link between the strengthening of international peace and security on the one hand, and disarmament, decolonization and development on the other.¹⁸

Further, the wording of the first paragraph of Article 1 indicates that three different functions of the United Nations organs may be distinguished as far as the maintenance of international peace and security is concerned, as they are specified in the operative part of the Charter: the General Assembly should insist upon and take measures so that States do not threaten or cause a breach of the peace; the Security Council is mandated to take effective collective measures if a State commits an act of aggression or another breach of peace or threatens to do so; and the General Assembly and the Security Council can proceed to find an adjustment or settlement of the dispute or situation.¹⁹ Overall, the United Nations has not only created organs, where sovereign States are required to work together toward maintenance of international peace and security, but has also put in place a structure of coordination between

¹⁶ See, R. Wolfrum, "Article 1," in B. Simma (ed.), *The Charter of the United Nations: A Commentary*, Vol. I (2002), at 40.

¹⁷ *Id.* at 40-41.

¹⁸ See, e.g, UNGA Resolution on the Strengthening of International Security, Res. 2734 (XXV), December 16, 1970. ¹⁹ See, R. Wolfrum, "Article 1," in B. Simma (ed.), *The Charter of the United Nations: A Commentary*, Vol. I (2002), at 43.

such organs, underscoring the importance of effective international cooperation in attainment of this goal.

The formulation of the second purpose was rather controversial and spurred extensive discussions.²⁰ Summary of these negotiations showed the objective pursued by the drafters of the second paragraph of Article 1. It assured that no peoples can be denied the right to self-determination on the basis of any alleged inferiority, and the reference to self-determination encompasses the principle of self-government, but does not justify the secession. "Finally, the principle of self-determination was formulated as a basis for friendly relations among nations. Thus, according to the drafters of the Charter, a hierarchy of principles existed in that the right of self-determination should be pursued so long as it does not disturb friendly relations among nations."²¹ Based on this interpretation, while generally being in favor of international cooperation as one instrument to help achieve this purpose it is hard to see how this paragraph mandates cooperation of States; rather it summarizes the general principle pertaining to self-determination.

The third purpose is also not a general obligation to cooperate because it aims at 'problems' – that is unless there is a specific problem that requires actions on the side of a State, no obligation to cooperate exists.²² This text did not cause major controversies apart from drafting changes, but the proposal was made to draft a bill of rights of nations and individuals. "It was, however, decided, that such a task should be left to the Organization."²³ The provision, therefore, should be viewed as an important part in achieving the major 'Purpose' as described above, which is the maintenance of international peace and security, and also as stipulating that international cooperation is generally a part of orderly international relations, but no specific obligation can be found here. Operative provisions of the Charter to which Article 1(3) pertains are Chapters IX and X, which similarly have not firmly established an obligation to cooperate, as it will be shown below.

²⁰ It reads: "To develop friendly relations among nations based on respect for the principle of equal rights and selfdetermination of peoples, and to take other appropriate measures to strengthen universal peace."

²¹ R. Wolfrum, "Article 1," in B. Simma (ed.), *The Charter of the United Nations: A Commentary*, Vol. I (2002), at 44.

²² It reads: "To achieve international co-operation in solving international problems of economic, social, cultural, or humanitarian character, an in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion."

²³ R. Wolfrum, "Article 1," in B. Simma (ed.), *The Charter of the United Nations: A Commentary*, Vol. I (2002), at 44.

The final goal enunciated in Article 1 is also aspirational, where the United Nations is envisioned as a general forum where States can discuss the most pressing issues and, more specifically, those pertaining to international peace and security. The fourth paragraph has a double meaning: "It refers, first, to the decision-making process in the United Nations organs and its underlying philosophy, while at the same time envisaging the transformation of the society of States into a community of States."²⁴ It has been widely accepted that "the UN is a place for negotiations, exchange of views, harmonization of views as to the maintenance of international peace and security for the purposes of international cooperation as provided in the UN Charter,"²⁵ but not all authors agree that the organization has been successful in achieving this purpose.²⁶

Additionally, since only the purposes of paragraphs 1 and 2 of Article 1 were given legal expression in Article 2, and not the general aim of cooperation, the imposition of the duty to cooperate should be viewed as declaring the need to cooperate on a broad scale in achievement of the major purpose of the United Nations, as it has been explained above, and also as declaring cooperation as a desirable way of inter-State behavior.²⁷ In the same vein, a prominent scholar enumerated several general principles enunciated in the Charter that are directly applicable to outer space activities, including the principle that all members "shall settle their international disputes by peaceful means" and the principle that "all Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State." The list apparently deliberately fails to include the principle of cooperation in the list of general principles of international law pertinent to outer space activities.²⁸

Article 11 gives the right to the General Assembly to consider the principle of cooperation, but usage of the verb 'may' reemphasizes the voluntary nature of such considerations. Although Article 13 uses stronger language and the verb 'shall', this obligation pertains solely to initiation of studies and making recommendations. Thereby, taken together

²⁴ Id.

²⁵ Морозов Г.И. Международные организации: Некоторые вопросы теории [International Organizations: Some Theoretical Questions]. С. 31; Cf. K.A. Annan, We the Peoples: The Role of the United Nations in the 21st Century (2000), at 5-7.

²⁶ See, T.R. Van Dervort, International Law and Organization (1998), at 504.

²⁷ See, R. Wolfrum, "International Cooperation," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1245.

²⁸ Cf., C.W. Jenks, Space Law (1965), at 208.

these articles empower the General Assembly "to initiate studies and make recommendations to promote international cooperation in the *political arena*."²⁹ The last two words are indicative of the scope of functions performed by the General Assembly in the area of promotion of international cooperation. Keeping in mind the legally non-binding nature of the General Assembly resolutions³⁰ and the overall unspecified nature of the obligations imposed,³¹ these articles should also be excluded as candidates for establishing an obligation to cooperate.

Article 56, finally, uses even more unspecific language, declaring that States "pledge" themselves to cooperate in achievement of goals set forth in Article 55. There is much uncertainty concerning the scope and meaning of Articles 55 and 56 as a matter of international law. Henkin analyzed these articles as applied to the matter of human rights as follows:

That states "pledge themselves" may suggest some form of legal obligation; but there has been no agreement among governments, or indeed among commentators, on the exact import and content of that obligation. While some governments and commentators have considered it only a general requirement of cooperation that has no normative content, others have argued that important infringements of generally-agreed human rights are violations of Articles 55 and 56. Some have further suggested that while the undertakings in the UN Charter were inchoate and general, they were realized and particularized in the Universal Declaration of Human Rights, so that all parties to the UN Charter are legally obligated to abide by the provisions in the Universal Declaration, the various international conventions, resolutions of UN organs and other multilateral bodies, and the practices of states have combined to create customary, or a blend of customary and conventional legal obligations binding upon all states to respect at least some human rights norms.³²

²⁹ K. Hailbronner with E. Klein, "Article 11," in B. Simma (ed.), *The Charter of the United Nations: A Commentary*, Vol. I (2002), at 278. [emphasis added]

³⁰ See, A. Obed, *Legal Effect of Resolutions of the General Assembly*, 3 Colum. J. Transat'l L. (1963-1964), at 210, 214. ("One must distinguish between the binding nature and the legal effect of resolutions of the General Assembly. Resolutions may have a legal effect even though they are not considered by states to be binding on them. In other words, the scope of "legal effect" is wider than that of "legally binding."). While agreeing with the argument that UNGA resolutions might have significant legal effect, especially on future development of international law, their legally non-binding nature remains undisputed, and in the present case "legal effect" cannot amount to creation of a legal obligation to cooperate.

³¹ See, Wilcox and Marcy, *Proposals for Changes in the United Nations* (1955), at 348, cited in A. Obed, *Legal Effect of Resolutions of the General Assembly*, 3 Colum. J. Transat'l L. (1963-1964), at 215 ("The General Assembly, of course, does not possess international legislative authority. It can study, it can debate, it can recommend, but it cannot legislate. In general, apart from the approval of the budget, it cannot make decisions that are binding on the members of the United Nations.").

³² L. Henkin, *The Age of Rights* (1990), at 55-56.

Although Article 55 enumerates a wide range of lofty and important goals, the wording of Article 56 does not allow identifying it as a proper legal basis for the general obligation to cooperate. The verb 'pledge' seems to have been chosen deliberately: since it has little or even no inherent legal value, it is almost never used in binding international agreements. BLACK'S LAW DICTIONARY explains: "To 'pledge' something means to put that thing up as collateral, in return for a loan. The collateral must be returned once full repayment for the loan has been received."³³ The OXFORD DICTIONARY provides a non-legal definition: "Commit (a person or organization) by a solemn promise."³⁴ Thereby, the verb in a sense used in this article would seem to lack legal value. This leads to the conclusion that Article 56 would not oblige States to cooperate.

Even if 'pledge' and 'solemn promise' could have amounted under circumstances to a strong sense of obligation even legally speaking (such as for example in the context of the League of Nations³⁵), substantial changes have occurred since 1945,³⁶ when cooperation and development were seen only as precursors to international peace and security and not as valuable concepts on their own, leading to reevaluation of cooperation and development's importance for the humankind in general and for the United Nations' work in particular. Even such views, however, substantially limit the scope of any relevant obligation: "The promotion of sustainable development as well as international development and environmental co-operation are now among the core objectives of the United Nations."³⁷ Hence, it is proposed that Articles 55 and 56 be interpreted expansively, but only as applied to sustainable development and cooperation in protection of the environment, and not as establishing a general obligation to cooperate.

The conclusion that the United Nations Charter does not obligate States to cooperate in any area except in the maintenance of international peace and security does not mean that the Charter is not a relevant source for establishment of the legal basis for international cooperation in outer space. To the contrary, international cooperation of States in outer space is generally based on the Charter's provisions. Although such cooperation goes beyond explicit, mandatory rules for United Nations members, cooperation for the purposes of economic, social and

³³ Black's Law Dictionary (9th ed. 2009), available at Westlaw BLACKS.

³⁴ Pledge [Def. Verb 1]. In Oxford Dictionary Online, September 3, 2014,

http://www.oxforddictionaries.com/us/definition/american_english/pledge.

³⁵ Seek confirmation of that!

³⁶ See, N.J. Schrijver, *The Future of the Charter of the United Nations*, 10 Max Plank Y.B. U.N. L. (2006), at 20. ³⁷ *Id.*

humanitarian development is a desirable way of conduct for every United Nations member. Thereby, all enumerated articles of the United Nations Charter communicate the principle of cooperation, but with an important limitation to its dimensions.

It has been suggested that the principle of cooperation might entail either an 'obligation of result' or an 'obligation of effort', sometimes also dubbed 'persuasive obligation'³⁸. The former presupposes that a hypothetical duty to cooperate would only be complied with if a particular result is achieved – in this case, if actual cooperation is the result of a request to do so – and is usually provided for in legally binding documents. The latter, by contrast, means that a duty to cooperate merely requires States to be willing to consider cooperation in good faith when a request is made, therefore, without any specific obligation to enter into actual cooperation with the requesting State.³⁹

Against this background, the United Nations Charter laid down the principle of cooperation, but did not establish a general obligation to cooperate. But it did establish an 'obligation of effort' by way of inclusion of cooperation as one of the Organization's purposes (Article 1), by way of entitling the General Assembly to take relevant steps in promotion of cooperation (Articles 11, 13), and by way of creation of the Economic and Social Council charged with creation of conditions of stability and well-being, which are necessary for peaceful and friendly relations (Articles 55, 56, 61). While none of the relevant articles creates a clear-cut obligation to cooperation in international relations and introduce the principle of cooperation 'obligation of effort' as an indispensable part of the modern international legal order. The 'obligation of result', therefore, is limited to States' obligations to cooperate in the maintenance of international peace and security, whereas cooperation in all other areas, while being considered beneficial, is left to the discretion of States, subjecting them solely to the obligation to consider cooperative proposals in good faith.

Eminent scholars arrived at a similar conclusion, though from a somewhat different perspective: "Though the Charter of the United Nations establishes a general purpose organization, with authority extending to all value processes – from those most directly affecting

³⁸ Add footnote as appropriate to Lepard's book on CIL!

³⁹ Cf., F.G. von der Dunk, "Contradictio in terminis or Realpolitik? A Qualified Plea for a Role of 'Soft Law' in the Context of Space Activities," in I. Marboe (ed.), Soft Law in Outer Space: The Function of Non-Binding Norms in International Space Law (2012), at 51.

minimum order ("the maintenance of international peace and security") to those more immediately concerned with optimum order (promotion of "international cooperation in the economic, social, cultural, educational, and health fields") – and purports to make some of the decisions of the organization binding even upon non-members, the kinds of decisions authorized to be taken are so limited, and the procedural difficulties imposed upon decision so great, that the actual effective authority of the organization is much diminished."⁴⁰

Some authors believe that the Charter is the world constitution. While this concept is perceived in varying ways, from stating that the Charter is "the text of reference" when international law is analyzed,⁴¹ to a belief that "the Charter is the constitution of the international community ... not to be compared by any other international agreement,"⁴² these approaches agree that the Charter is a treaty establishing the most comprehensive framework of cooperation in the history of international relations.⁴³ Generally, the importance of the organization as a permanent forum for multilateral diplomacy, and "the moral as well as legal strength of the Charter as the only comprehensive covenant common to the universality of States, is undoubted."⁴⁴

1.1.2 1970 Declaration on Friendly Relations

Provisions of the United Nations Charter pertaining to cooperation were further developed in the 1970 Declaration. The Declaration was adopted in the form of a United Nations General Assembly Resolution, thus it is not a legally binding document. However, not all United Nations General Assembly resolutions are the same: some carry more weight than others, though remaining non-binding instruments from a legal perspective. It has been noted that the 1970 Declaration is an example of the United Nations General Assembly resolution that "contain[s] interesting and valuable statements, some of which purport to be statements of international law."⁴⁵ One aspect to consider in this regard is the voting procedure. It is often pointed out that

⁴⁰ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 106-07.

⁴¹ See, P. Dupuy, *The Constitutional Dimension of the Charter Revisited*, 1 Max Plank Y.B. U.N.L. (1997), at 31, 33.

⁴² Q. He, "The Crucial Role of the United Nations in Maintaining International Peace and Security," in C. Tomuschat (ed.), *The United Nations at Age Fifty, A Legal Perspective* (1995), at ix.

⁴³ See, R. Macdonald, *Charter of the United Nations in Constitutional Perspective*, 20 Aust. Year Book of Int'l Law, Vol. 20 (1999), at 230.

⁴⁴ Id.

⁴⁵ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 44.

the voting record is a good indicator of the level of support: it reflects whether the resolution has universal support, or may be deemed a concession or a compromise.⁴⁶

The 1970 Declaration was adopted without voting by consensus. Some have opined that consensus *per se* does not mean anything, because States favor this method owing to the absence of necessity to take a strong position on a particular issue, and hence it relieves them from taking on any specific obligation.⁴⁷ The better view is that the voting procedure itself does not alter the essence or the nature of the document in question. During negotiations documents are often watered down to purely inspirational provisions, and in this case the voting procedure would not change the nature and legal force of respective provisions. And with regard to United Nations General Assembly resolutions, which are *a priori* legally non-binding, the notion of 'specific obligations' in the strictly legal sense is not applicable. Nevertheless, it is widely supported that resolutions adopted without voting or by an overwhelming majority of States might be used to identify the emergence of a customary norm.⁴⁸

The second thing to note is the title of the document – 'declaration'. The form of a declaration is used when participating States wish to underline importance of a particular decision. More specifically, this form is sometimes deemed appropriate for codification of existing customary international law or general principles of law.⁴⁹ The Memorandum of the United Nations Office of Legal Affairs on the Use of Terms "Declaration and Recommendation" states: "In the United Nations practice, a 'declaration' is a formal and solemn instrument, suitable for rare occasions when principles of great and lasting importance are being enunciated, such as the Declaration on Human Rights. A recommendation is less formal. Apart from the distinction just indicated, *there is probably no difference between a 'recommendation' or a 'declaration' in the United Nations practice as far as strict legal principle is concerned.*"⁵⁰ In the end, "declarations do not constitute a separate legal category,"⁵¹ but they bear additional political

⁴⁶ For example, the UNGA Resolution voting record is often considered in the identification of emergence of a customary international norm. *See*, R. Higgins, *The Development of International Law Through the Political Organs of the United Nations* (1963), at 2; I. Brownlie, *The Rule of Law in International Affairs: International Law at the Fiftieth Anniversary of the United Nations* (1998), at 19-20.

⁴⁷ See, E. Suy, "The meaning of consensus in multilateral diplomacy," in *Declarations on Principles - A quest for universal peace* (1977), at 260.

⁴⁸ See, e.g., B. Conforti, B. Labella, An Introduction to International Law (2012), at 35, 42-43.

⁴⁹ H.J. Hahn, "International Organizations, Resolutions," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1334.

⁵⁰ E/CN.4/L.610 (2.4.62), at 1-2. [emphasis added]

⁵¹ B. Cheng, *Studies in International Space Law* (1997), at 133.

and moral value, elevating them in the hierarchy of legally non-binding United Nations General Assembly resolutions.

Taking into consideration both the voting procedure – consensus – and the declaration form, the 1970 Declaration serves as an important source for understanding the scope of States' obligations derived from the principle of cooperation. Although it is debatable that the 1970 Declaration is a codification of international customary law *strictu sensu*, and consequently that its provisions are of a legally binding nature, this document should be considered at the very least a reliable source of the generally supported view on the obligations stemming from the principle of cooperation. In the absence of a generally supported consensus regarding the customary nature of the provisions of the Declaration, they should not be treated as such.⁵²

The Declaration does not define the term 'cooperation' but the analysis of the text allows identifying cooperation as a voluntary coordinated action of two or more States, which takes place under a legal regime and serves a specific objective.⁵³ Paragraph 1 and subsections (a) and (b) enumerate obligations of States following from the principle of cooperation. In two instances the Declaration uses the verb 'shall', while in other paragraphs the verb 'should' is used. It is only logical that if a legally binding treaty uses the words 'should' or 'may' instead of 'shall', the result is still a legal obligation. And *vice versa*, usage of the stringent 'shall' in a legally non-binding document still cannot alter the legal nature of the relevant provision: what it can do is to put an emphasis on these provisions, signify their importance for this document, for the adopted organ or even for the whole international community.

The Declaration uses the verb 'shall' in reiterating the obligation to cooperate in the maintenance of international peace and security, and in the promotion of universal respect and observance of human rights and fundamental freedoms. Leaving aside to a more appropriate time and place the discussion of whether the international obligation to cooperate in protection of human rights exists, the Declaration's statement about the existing obligation to cooperate in the maintenance of international peace and security is simply repetitive of the relevant provision of the United Nations Charter. The Charter established a clear-cut 'obligation of result' in the realm of maintenance of international peace and security – after all, this is what the Organization is all

⁵² Refer in general terms to the discussion on specific parts of the Declaration as CIL, to heed Professor Lepard's comment 17.

⁵³ See, R. Wolfrum, "International Cooperation," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1242.

about; and hence the Declaration, being a source of a generally supported view on the principle of cooperation, could not have deprived the relevant provision of a separate, exclusive treatment, in this case exemplified by the verb 'shall'. At the same time, this obligation is not broad enough to constitute a general obligation to cooperate in other areas of international relations.

In the following subparagraphs pertaining to cooperation in "economic, social and cultural fields as well as in the field of science and technology"⁵⁴ the verb 'should' is used. The notion of economic, social and cultural cooperation easily fits within the scope of general cooperation since it covers everything and anything, especially in our globalized and interconnected world. But the Declaration, being a legally non-binding document, and additionally using the verb 'should', following the legally weak wording of the Charter provisions in this regard, leads to a conclusion that the 'obligation of effort' as established in the United Nations Charter is the only obligation pertaining to cooperation in areas other than in the maintenance of international peace and security that has gained broad support of States.

Further, paragraph 2 of the 1970 Declaration states: "Nothing in this Declaration shall be construed as prejudicing in any manner the provisions of the Charter or the rights and duties of Member States under the Charter." Since the conclusion has been drawn that the United Nations Charter imposes the 'obligation of result' only in the area of maintenance of international peace and security, the Declaration, being an authoritative but still legally non-binding document, cannot and must not provide for more extensive obligations of member States. In the same vein, that does not preclude the Declaration from expressing a wish for States to cooperate in a broader range of areas, to promote and increase cooperation in the areas important for sustainable development of humankind.

The 1970 Declaration in paragraph 8 of the preamble mentions the principle of nonappropriation of outer space and celestial bodies, thus specifically extending application of its provisions to outer space activities. It has been stated earlier that the form of 'declaration' signals that the document is supposed to codify generally accepted norms of international law, and even international custom, albeit not altering its 'soft law' nature.⁵⁵ Since the Declaration was specifically made applicable to the area of outer space exploration and use by virtue of the cited provision, the question is whether it was able to codify as a generally accepted, or at least

⁵⁴ *Id.*, at 1245.

⁵⁵ See, R. Wolfrum, "International Cooperation," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1242.

emerging, customary norm the obligation to cooperate in exploration and use of outer space. More specifically, was the Declaration capable of codifying the principle of cooperation in outer space as imposing the 'obligation of result'? In 1970 it was only 23 years since the first space launch. Therefore, the question is whether by 1970 there was sufficient State practice to justify identification of an obligation to cooperate in outer space. The traditional approach⁵⁶ requires that practice – just one of the international custom elements – must be general and consistent.

The International Court of Justice held in the *North Sea Continental Shelf* case that, "the passage of only a short period of time is not necessarily, or of itself, a bar to the formation of a new rule of customary international law ... [yet] an indispensable requirement would be that within the period in question, short though it might be, State practice, including that of States whose interests are specially affected, should have been both extensive and virtually uniform ... and should moreover have occurred in such a way as to show a general recognition that a rule of law or legal obligation is involved."⁵⁷ While some rules may inevitably take longer to emerge, ⁵⁸ provided that practice shows sufficient generality and consistency, no particular duration is required.⁵⁹

It should be emphasized that identification of a customary norm mandating cooperation in outer space requires analysis not of the individual, read national, activities in exploration and use of outer space, but of the cooperative endeavors of States showing that "a general recognition that a rule of law or legal obligation is involved."⁶⁰ Moreover, unlike, for example the right of innocent passage,⁶¹ establishment of a customary norm mandating cooperation, especially in its

⁵⁶ See, International Law Commission, Second Report on Identification of Customary International Law, by Michael Wood, Special Rapporteur, A/CN.4/672, November 13, 2014,

http://legal.un.org/ilc/documentation/english/a_cn4_672.pdf. For an academic review of the issue see, J.

D'Aspermont, Guest Post: Amidst the Academic Mania for the Identification of Customary International Law – The ILC and the Operative Value of Distinctions, Accessed on November 13, 2014,

http://opiniojuris.org/2014/11/12/guest-post-amidst-academic-mania-identification-customary-international-law-ilc-operative-value-distinctions/.

⁵⁷ North Sea Continental Shelf, Judgment, I.C.J. Reports 1969, p. 3, at p. 43, para. 74; see also p. 124 (Separate Opinion of Judge Ammoun), p. 230.

 $^{^{58}}$ See, H. Lauterpacht, "Sovereignty over Submarine Areas," in *British Yearbook of International Law*, 27 (1950), at 393 (suggesting that "[t]he 'evidence of a general practice as law' – in the words of Article 38 of the Statute – need not be spread over decades. Any tendency to exact a prolonged period for the crystallization of custom must be proportionate to the degree and the intensity, of the change that it purports, or is asserted, to effect").

⁵⁹ See, L.B. Sohn, "Unratified Treaties as a Source of Customary International Law," in A. Bos, H. Siblesz, *Realism in Law-Making: Essays in International Law in Honour of Willem Riphagen* (1986), at 234.

⁶⁰ North Sea Continental Shelf, Judgment, I.C.J. Reports 1969, p. 3, at p. 43, para. 74; see also p. 124 (Separate Opinion of Judge Ammoun), p. 230.

⁶¹ Though controversial, the view was expressed that the right of innocent passage was established as a customary norm after the Sputnik I space flight by way of absence of protests against flying a spacecraft above States'

'obligation of result' dimension, would require existence of an affirmative practice unequivocally showing recognition by States of an existing legal obligation, primarily by means of engaging in appropriate cooperative activities motivated by the existing legal obligation, and not the mere willingness to engage in cooperation. Even though a relatively short period of outer space exploration and use does not bar the emergence of a customary norm, it is hard to advocate that by 1970, with successful participation of only two States and quite limited cooperative activities, the practice of cooperation in outer space activities had become "extensive and virtually uniform" (unless one would make the argument that also non-spacefaring States should somehow cooperate with those States in the course of the latter's space activities, such as by discussing the hosting of ground stations⁶²). Therefore, the 1970 Declaration did not and could not establish a general obligation to cooperate, especially with respect to outer space activities. It reaffirmed the existing 'obligation of result' in cooperation in the maintenance of international peace and security and reaffirmed the 'obligation of effort' as established by the United Nations Charter in other areas, but hardly more.

1.1.3 Outer Space Treaty and Three Elaborating Conventions

Space law has had an astonishingly good start.⁶³ The Outer Space Treaty, however, being the seminal international instrument for law of outer space, has not done much in establishing the legal basis for cooperation *per se*. The Outer Space Treaty is a treaty of principles,⁶⁴ thus its provisions should be treated accordingly. Articles III, IX, X, and XI declare the need to cooperate, whether to maintain international peace and security (Article III), to have regard for corresponding interests of other parties (Article IX), to allow observation of space objects (Article X), or regarding dissemination of information about space activities (Article XI).

territories without their explicit consent. See, M. Lachs, An Experience in Contemporary Law-Making (2010), at 59-63; M. Benkö and K.-U. Schrogl (eds.), International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space (1993), at 135; M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, Law and Public Order in Space (1963), at 205 ("The United Nations Ad Hoc Committee on Peaceful Uses of Outer Space was, therefore, fully justified in concluding that "during the Geophysical Years 1957-1958 and subsequently, countries throughout the world proceeded on the premise of permissibility of the launching and flight of the space vehicles which were launched, regardless of what territory they passed 'over' during the course of their flight through outer space."").

⁶² See further down, where in the context of the bileratal treaties' discussion such treaties on such hosting of ground station are included.

 ⁶³ V.V. Vereshchetin, "Space Law," in *Encyclopedia of Public International Law*, Vol. 4 (2000), at 556.
 ⁶⁴ Id. at 553.

The overarching provision for interpretation of these articles is Article I declaring outer space and celestial bodies a 'province of all mankind'. The concept of the 'province of all mankind' is different from the 'common heritage of mankind' concept, where the latter is based on the presumption that space exploitation can take place only within the limits of specific international regime,⁶⁵ while the former is focused on providing equal access to all States by promoting equal participation in its use and exploration unless specific obligations have been agreed upon.⁶⁶ All other Outer Space Treaty provisions are inseparable from the concept of the 'province of all mankind' and should be analyzed accordingly.

If the main purpose of the Treaty is to prevent deprivation of any State of the opportunity to explore and use outer space for peaceful purposes, then provisions of Articles III, IX, X and XI all convey the same idea: due respect to the existing right to exploration and use of outer space of non-spacefaring nations by the States active in outer space activities. The purpose is to ensure global access to the resources of outer space, to save the opportunity for exploration even for those players who are not capable of reaching it physically yet, and to get spacefaring nations used to the fact that they are not the only ones willing to explore outer space, its resources and its secrets. Likewise, "the Outer Space Treaty provided for further limitations to any potential unfettered freedom to act in outer space in the context of its 'global commons' character by requiring all space activities to be conducted in accordance with general international law, by imposing certain limitations on military uses, by imposing certain coordination and consultation requirements in case of potentially harmful space activities, and by allowing access 'to representatives of other States Parties to the Treaty on a basis of reciprocity' to '[a]ll stations, installations, equipment and space vehicles on the Moon and other celestial bodies'."⁶⁷

With this perspective, none of the cited articles of the Outer Space Treaty, strictly speaking, seems to create a legal basis for cooperation. None of the articles encourages

⁶⁶ Международное космическое право [*International Space Law*], под ред. Жукова Г.П., Колосова Ю.М. – М.: Международные отношения, 1999. С. 55-56. *See* also, F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 58; P. Malanczuk, *Akehurst's Modern Introduction to International Law* (1997), at 171-75; R. St. J. Macdonald, "The Common Heritage of Mankind," in *Encyclopedia of Public International Law*, Vol. 1 (1992), at 153-71; N. Jasentuliyana, *The UN Space Treaties and the Common Heritage Principle*, Space Policy, Vol. 2 (1986), at 296; G.M. Danilenko, "The Concept of the Common Heritage of Mankind in International Law," in *Annals of Air and Space Law*, Vol. XIII (1988), at 247. ⁶⁷ F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 59.

⁶⁵ See, F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 58; R. Wolfrum, "International Cooperation," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1247.

cooperation. Rather, cooperation is seen as a final point of the process, not as a *modus vivendi* that has to be achieved by way of existence of the Treaty as such.⁶⁸ The references to international organizations carrying on activities in outer space in Articles VI and XIII do not operate as provisions setting forth a mechanism of cooperation. The literal reading of the provisions prompts the conclusion that existence and operation of such organizations is already presumed and that the role of the Treaty is to provide a legal standard for regulation of their pertinent activities. The third sentence of Article VI reads: "When activities are carried on in outer space by an international organization, responsibility for compliance with this Treaty shall be borne by the international organization and by the States Parties to the Treaty participating in such organization." The operative word here is 'when': the Treaty does not require, or even recommend carrying on activities in a cooperative manner using a mechanism of international organization, but merely provides rules in case such cooperation might be taking place.

Therefore, the Treaty has a limited effect on the understanding of the principle of cooperation in outer space activities. It acknowledges existence of certain cooperative mechanisms, provides appropriate legal regulation but refrains from advancing cooperation by way of establishing a new mechanism of cooperation, instead elaborating on the ways the principle of cooperation operates in outer space activities. Provisions enunciated in Articles III, IX, X and XI should be regarded as implications of the principle of cooperation, several of its practice-oriented incarnations as applied to outer space activities.⁶⁹ Hence, the Treaty has confirmed the status of the principle of cooperation as one of the general principles, but not as a concrete unconditional legal obligation, whether it is understood as one of an effort or one of a result.⁷⁰

Three elaborating conventions: the Agreement on the Rescue of Astronauts and the Return of Objects Launched into Outer Space (1969),⁷¹ the Convention on International Liability for Damage Caused by Space Objects (1972),⁷² and the Convention on Registration of Objects

⁶⁸ See e.g., Report of the Fifty-Fourth Conference of the International Law Association (1970), at 434.

⁶⁹ Cf., C.W. Jenks, Space Law (1965), at 218.

⁷⁰ *Сf.*, Верещетин В.С. Международное сотрудничество в космосе [*International Cooperation in Outer Space*]. М.: Наука. 1974. С 29.

⁷¹ Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched Into Outer Space, Apr. 22, 1968, 19 U.S.T. 7570, T.I.A.S. No. 6599, 672 U.N.T.S. 119.

⁷² Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, T.I.A.S. No. 7762, 961 U.N.T.S. 187.

Launched into Outer Space (1975),⁷³ do not specifically mention the issue of cooperation, except in their preambles. This is perfectly logical because these international treaties themselves are the results of intensive cooperation among interested States. These instruments provide for a detailed mechanism of coordination, claims settlement, exchange of information and collaborative actions. The three elaborating conventions are both the result of cooperation, and the basis for collaboration.⁷⁴

1.1.4 The Principle of Cooperation in Outer Space

Having reviewed cooperation-related provisions of the United Nations Charter, the 1970 Declaration, the Outer Space Treaty and three elaborating conventions, the conclusion is drawn that the obligation to cooperate is rather limited, while the message is very broad. This conclusion is true both generally in international law and in space law in particular.

Kolosov famously stated: "Adherence to the principle of cooperation is one of the State's obligations. Implementation of the principle of cooperation must comply with the provisions constituting its content. With regard to specific scope and terms of cooperation of particular States, (beyond the limits constituting specific elements of the principle) they must be a topic of corresponding agreements. No State is entitled to impose on the other State object and terms of cooperation in any area. There is no legal obligation in this regard provided by the international law."⁷⁵ In other words, Kolosov viewed the obligation to cooperate as being one of an 'effort', clearly rejecting the possibility of imposition of the 'obligation of result' in international legal cooperation.

Along the same line, Lukashuk pointed out that the principle of cooperation was legally assailable, because it was as hard to legally oblige States to cooperate in specific matters, as it was hard to bind them with friendship.⁷⁶ More radical views exist, including the one expressed

⁷³ Convention on Registration of Objects Launched into Outer Space, Nov. 12, 1974, 28 U.S.T. 695, T.I.A.S. No. 8480, 1023 U.N.T.S. 15.

⁷⁴ For more information *see*, S. Hobe, B. Schmidt-Tedd and K.-U. Schrogl (eds.), *Cologne Commentary on Space Law* (Vol. 2) (2013); F.G. von der Dunk, *A Sleeping Beauty Awakens: The 1968 Rescue Agreement after Forty Years*, 34 J. of Space L. 411 (2008); F. Lyall and P.B. Larsen, Space Law: A Treatise (2012), 81-128; F.G. von der Dunk, "International Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), 78-99; B. Cheng, *Studies in International Space Law* (1997), 265-356.

⁷⁵ Колосов Ю.М. Борьба за мирный космос [*Battle for a peaceful outer space*]. Международные отношения, М., 1968. С. 29-30.

⁷⁶ Лукашук И.И. Международное право. Общая часть [*International Law: General Part*]. М.: Волтерс Клувер, 2005. С. 286.

by the former member of the United Nations International Law Commission and judge of the International Court of Justice Fitzmaurice. He opined that it was hard to imagine that an idea of obligation to cooperate would develop into a general principle of international law.⁷⁷ In the context of space activities Jenks opined to the point, albeit in a somewhat limited context, explaining that "the general obligation of States to be guided in their space activities by the principle of cooperation and mutual assistance does not involve a firm obligation of cooperation in any particular arrangements."⁷⁸

Wolfrum suggested that acceptance of the principle that States were under a general obligation to cooperate with one another would result in a fundamental restructuring of international law in three ways. First, international law would be transformed from a set of rules preserving the present state of existing international relations into a regime oriented to fulfill a certain mission: promotion of international social justice. Second, it would substantially alter rights and duties of States, making the development and wellbeing of common international places a common interest for all States. Third, it would change the status of subjects of international law, increasing significance of international organizations vis-à-vis a single State, and introducing inequality in relationships between States.⁷⁹

The last view apparently treats the general obligation to cooperate as one of a result and is probably exaggerating the consequences of existence of such. First, States remain sovereign, and their choice, whether regarding cooperation or participation in an international organization or a treaty imposing an obligation to cooperate, remains free and legally unrestrained. It is indeed doubtful that the obligation to cooperate, especially in its 'obligation of result' dimension, would obtain a status of a *ius cogens* norm automatically binding every State notwithstanding its will, from which no derogation is ever permitted.⁸⁰ Second, universal cooperation is not always practically possible and outer space is a good example.

In a limited field, an obligation to cooperate does exist. It is undoubted that all members of the United Nations are under a legal obligation to cooperate in the maintenance of international peace and security as provided by Articles 1 and 2 of the United Nations Charter,

⁷⁷ See, IDL Livre du Centenaire, 1873-1973 (1973), at 319.

⁷⁸ C.W. Jenks, *Space Law* (1965), at 234.

⁷⁹ See, R. Wolfrum, "International Cooperation," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1243-44.

⁸⁰ For more information *see*, I. Brownlie, *Principles of Public International Law* (2008), at 501-525; United Nations International Law Commission, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, 13 April 2006, at 181-192. A/CN.4/L.682.

whereas States obviously are under both obligations of effort and result. Cooperation in this area is a centerpiece, a cornerstone of the United Nations. Without this obligation neither legally binding decisions of the Security Council, nor peacekeeping operations would ever be possible.

None of the specialized international treaties regulating outer space activities has developed a comprehensive legal regime of cooperation, instead referring to principles and norms of general international law and the United Nations Charter. In these circumstances, the Charter and the 1970 Declaration are the only relevant sources for identifying the scope of the principle of cooperation. Their analysis led to a conclusion that international cooperation of States is only mandatory in the maintenance of international peace and security. In all other areas States are merely required to *promote* cooperation in accordance with general principles of international law.⁸¹ This conclusion squares with the obligation of result-effort dichotomy: the 'obligation of result' pertains solely to the maintenance of international peace and security, while cooperation in all other areas should be characterized as the 'obligation of effort'. The status of the principle of cooperation as the general principle of international law is supported by the majority of authors, and has been reaffirmed multiple times in international documents of both legally binding and non-binding character. But, as it has been shown above, the 'obligation of result' side of the principle of cooperation is not viewed as an indispensable part of the principle, while the 'obligation of effort', or the requirement that States act in a cooperative manner in their relations, is an undisputed part of the principle of cooperation in international law.

The 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 as United Nations General Assembly Resolution 51/22 on December 13, 1996 is considered to be a "general framework for international cooperation."⁸² The Declaration pronounces: "States are free to determine all aspects of their participation in international cooperation in the exploration and use of outer space on an equitable and mutually acceptable basis. Contractual terms in such cooperative ventures should be fair and reasonable."⁸³ It confirms that international cooperation should be in full compliance with

⁸¹ See, Каменецкая Е.П. Космос и международные организации: международно-правовые проблемы [Outer Space and International Organizations: International Legal Problems]. М., 1980. С. 27.

⁸² M. Benkö, K.-U. Schrogl, Space Law at UNISPACE III: Achievements and Perspectives, 49 ZLW 74 (2000).

⁸³ 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, GA res. 51/122, UN Doc. A/AC.105/572/Rev. 1 (1996).

international law including the Charter of the United Nations and the Outer Space Treaty. It, however, by contrast to the first draft of the Declaration presented to the COPUOS Legal Subcommittee in 1991, abandoned the approach of forcing countries into cooperation. Scholars have argued that "the only constructive but simple reason [for that] should have been that international cooperation should not be forced upon countries, because without shared interests cooperation cannot be fruitful."⁸⁴ It has been further argued that "the most important political lesson might be that international cooperation neither can nor should be forced upon States."⁸⁵

"International cooperation according to this Declaration is characterized by the free choice with respect to modes of cooperation and the renouncement of so-called "forced cooperation" as well as any forced transfer of technology."⁸⁶ Almost 40 years following the beginning of international space cooperation States adopted a legally non-binding, though widely supported document summarizing the principle of cooperation as applied in outer space exploration. The interpretation of the principle of cooperation suggested above is in full compliance with the one adopted in the Declaration.

The International Code of Conduct for Outer Space Activities in paragraph 6.3 provides a good overview of the principle of cooperation supporting the proposed approach. It states:

Subscribing States, particularly those with relevant space capabilities and with programmes for the exploration and use of outer space, should contribute to promoting and fostering international cooperation in outer space activities, giving particular attention to the benefit for and the interests of developing countries. Each Subscribing State is *free to determine the nature of its participation* in international space cooperation *on an equitable and mutually acceptable basis* with regard to the legitimate rights and interests of parties concerned, for example, appropriate technology safeguard arrangements, multilateral commitments and relevant standards and practices.⁸⁷

Thus, States in exploration and use of outer space must cooperate to maintain international peace and security, or alternatively are under the 'obligation of result', and should cooperate, whenever feasible, in the economic, social and cultural fields as well as in the field of

⁸⁴ M. Benkö and K.-U. Schrogl (eds.), *International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space* (1993), at 213.

⁸⁵ *Id.* at 215.

⁸⁶ M. Benkö and K.-U. Schrogl, *Space Law at UNISPACE III: Achievements and Perspectives*, 49 ZLW (2000), at 74.

⁸⁷ European Union, International Code of Conduct for Outer Space Activities, version from March 31, 2014, para.

^{6.3,} http://eeas.europa.eu/non-proliferation-and-disarmament/outer-space-activities/index_en.htm. [emphasis added]

science and technology and for the promotion of international cultural and educational progress, or alternatively are under the 'obligation of effort'. In the latter spheres the duty to *consider cooperation* in good faith transforms into the obligation to *cooperate in practice* only pursuant to relevant provisions of specific international agreements.⁸⁸

1.2 Role of Cooperation in Exploration and Use of Outer Space

International cooperation of States in outer space had a fast start, gradually developed and went through dramatic transformation in the 1990s. In this part of the book it will be explored how international cooperation in outer space began, how it developed, where it is now and how the most recent trends in exploration and use of outer space have affected international cooperation. The transformation and evolution of the mechanisms of cooperation, and the alteration of the legal basis for cooperation will be analyzed against a historical, economic and technological background. Emerging trends and corresponding legal issues in exploration and use of outer space will be briefly covered.

1.2.1 The First Mechanism of Cooperation – Committee on Peaceful Uses of Outer Space

The United Nations Committee on Peaceful Uses of Outer Space (COPUOS) was historically the first mechanism of international legal space cooperation. It had been initially established as an *ad hoc* Committee of the United Nations General Assembly in 1958, and was made permanent one year later by General Assembly Resolution 1472 (XIV) of December 12, 1959. At that time the Committee had eighteen members, and as of 2016 it has eighty-three members, what makes it one of the larger United Nations committees.

The General Assembly saw the issue of outer space exploration as one of the prominent challenges to the international legal regime that existed at that time. The fast pace in creation of the Committee, and the fact that the legal issues of outer space exploration and use prompted the United Nations General Assembly to establish a separate office instead of including a question in the General Assembly agenda, showed recognition of the peculiar problems involved. It also

⁸⁸ This view is supported by modern German legal approach to international law. *See*, W.G. Vitzthum et al., *Völkerrecht [International Law]* (2007), at 48.

demonstrated that there was a new area of activities lacking any kind of regulation, which both called for and provided an opportunity for a new thinking and new procedures.⁸⁹

Other authors explained that "it was perfectly normal that the General Assembly should take care of the new problems, but the materials were too specialized for a meeting which was intrinsically too political and too large for dealing with a new technology. Fortunately, the United Nations Committee for the Peaceful Uses of Outer Space or COPUOS was set up."⁹⁰ Soviet international law theory explained the swift start and rapid development as something obvious and natural: "Major scientific developments have always created the necessity for regulating new relations. Law cannot and must not fall behind scientific and technical progress. Law must in a timely manner regulate those relations that had been established while using advancements of modern science, and exclude (limit) the damage that is caused by unreasoned (unfounded) experiments."⁹¹

COPUOS played a paramount role in the creation and development of international space law.⁹² Within the Committee five outer space treaties were negotiated and drafted, and four sets of guiding principles were developed. COPUOS still remains the principal international forum where all interested States are able to exchange information and discuss the most pressing issues. The Committee in its report to the United Nations General Assembly noted "the instrumental role it had played in constructing the legal regime governing outer space activity for peaceful purposes, which was an entirely new branch of international law, and in providing a unique platform at the global level for enhancing international cooperation for the benefit of all countries, in particular in the area of using space applications for sustainable development."⁹³

Despite the initial remarkable success of the Committee's work, currently more and more often proposals are voiced about reforming COPUOS. It is suggested that COPUOS has become hulking, over-bureaucratized, lacking political will to move on and consider the most pressing issues in a decisive way. As space law matures and as what is required tends more and more to

⁸⁹ See, F. Lyall and P. B. Larsen, Space law: A Treatise (2009), at 18.

⁹⁰ E.R.C. van Bogaert, Aspects of Space Law (1986), at 261.

⁹¹ Каменецкая Е.П. Космос и международные организации: международно-правовые проблемы [Outer Space and International Organizations: International Legal Problems]. М., 1980. С. 14-15.

⁹² See, N. Jasentuliyana, International Space Law and the United Nations (1999), at 26-27.

⁹³ Report of the Committee on the Peaceful Uses of Outer Space to the 2007 General Assembly (A/62/20), para. 11.

be private and domestic law solutions for particular problems, it may be that COPUOS will take a back seat, and substantial developments will be taking place elsewhere.⁹⁴

On the other side, it is argued that the main role of the Committee is to help "in some measure to outbalance inadequacies felt in the legal field. In this respect, it is more difficult to point to concrete results, since the Committee itself does not actually carry out space activities."⁹⁵ Changes within the space industry, including the relaxation of political tensions and the development of science and technology will "certainly renew, at some stage in the future, the traditional role of the United Nations and its Outer Space Committee as indispensable instruments for the further development of space law. Their universal nature is also the best guarantee that interests and concerns of all nations can be met and compromise be reached when philosophies, policies and strategies concerning the exploration and use of Outer Space continue to be opposed."⁹⁶

Both views have not, at least by now, proved to be completely true. Although national legislation does play a more and more significant role in outer space activities, the international space regime remains the foundation for all national legislation. While national legislation, which is present in only a handful of States,⁹⁷ deals with issues that have not been addressed at the international level,⁹⁸ the Outer Space Treaty is the one to guarantee that outer space "shall be free for exploration and use by all States without discrimination of any kind,"⁹⁹ the Registration Convention is the one mandating international registration of launched space objects, and the Liability Convention provides guarantees that victims would receive proper compensation for damage suffered notwithstanding any national legal provisions of the liable State. These issues are not the ones on the current agenda of the space community simply because they have already been settled. And without these basic features of the outer space legal regime, which could only have been agreed upon on an international multilateral level, all further legislation would have

 ⁹⁴ See, F. von der Dunk, "The Undeniably Necessary Cradle – Out of Principle and Ultimately Out of Sense," in G. Lafferranderie and D. Crowther (eds.), Outlook on Space Law over the Next 30 Years (1997), at 401-14.
 ⁹⁵ P. Jankowitsch, The role of the United Nations in outer space law development: past achievements and new

challenges, 26 J. Space L. (1998), at 106.

⁹⁶ *Id.* at 109-110.

⁹⁷ F. von der Dunk, "Another Addition to National Space Legislation: The Austrian Outer Space Act, Adopted 6 December 2011," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 643-44.

 ⁹⁸ For example, definition of the 'outer space' in South African and Australian national space acts. See, *Id.* at 649.
 ⁹⁹ Art. I of 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, Art. 1, 610 U.N.T.S. 205.

hung in the air. Moreover, it has been noted that "growth of national space laws is a result of growing compliance with treaties and other international obligations,"¹⁰⁰ confirming the foundational role played by international space law.

At the same time, the most recent developments in science and technology, the end of the Cold War and the growth of the number of spacefaring nations have not led to transformation of COPUOS into an indispensable mechanism, in the absence of which the whole system of international cooperation would be ruined. It is unlikely that in the foreseeable future a dramatic change may occur. States determine the way international cooperation develops; the decline of one way of cooperation leads to creation of a new, different mechanism that is able to meet the needs and interests of cooperating States.

The future of COPUOS has been under discussion both in an academic setting and within the Committee itself.¹⁰¹ COPUOS work is flawed in many ways, including a controversial consensus voting procedure,¹⁰² the representation of States by low-ranking diplomats without any specific knowledge of space law,¹⁰³ and a decreasing level of attendance of sessions in general.¹⁰⁴ The Committee, however, continues its work. Annual reports of the Committee show the ongoing discussion of contemporary issues pertaining to exploration and use of outer space, and new documents are being discussed and adopted.¹⁰⁵

The most important conclusion to be drawn at this stage is not about ways and means to reform or enhance the Committee's working procedures, but about the role of cooperation in outer space exploration. With the first launch of a space object members of the United Nations realized that this whole new area – a true *tabula rasa* – needed to be addressed. It is notable that space activities almost immediately took a special place in the United Nations system. More broadly, international cooperation proved to be an immutable characteristic of outer space exploration and use from the early days of the space era.

 ¹⁰⁰ J. I. Gabrynowicz, Keynote: *The Legal Evolution of a 'Use' of Space: The Case of Remote Sensing*, 58th IISL
 Colloquium on the Law of Outer Space, Technical Programme "7th Nandasiri Jasentuliyana Keynote Lecture on
 Space Law and Young Scholars Session," IAC-15.E7.1.1. Not yet published as of November 2015.
 ¹⁰¹ Toward United Nations Space Policy, A/AC.105/L.278.

¹⁰² Cf., F. Lyall and P. B. Larsen, Space law: A Treatise (2009), at 21-22.

¹⁰³ See, N. Jasentuliyana, "Lawmaking in the United Nations," in N. Jasentuliyana, (ed.), Space Law – Development and Scope (1992), at 35-36.

¹⁰⁴ For example, *Report of the Committee on the Peaceful Uses of Outer Space* to the 2014 General Assembly (A/69/20), para. 8.

¹⁰⁵ Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (ST/SPACE/49), were endorsed by the General Assembly and were the result of a multi-year discussion on the issue within COPUOS.

1.2.2 UNISPACE Conferences

Not long after the creation of COPUOS the first international universal conference - the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE) – was commenced in 1968 under auspices of COPUOS. It focused on practical benefits of outer space exploration and use, and considered the question of the level of non-spacefaring nations' inclusion in the process of enjoying these benefits.¹⁰⁶ The latter issue was the most critical for all States but the two leading spacefaring nations. The Outer Space Treaty had already been in force, so the question of the 'benefit for all mankind' was as acute as ever.

By 1982 the second conference was convened, representing a growing number of the States involved. Ninety-four States and forty-five international governmental and non-governmental organizations participated in the conference. And for the first time the private sector was participating in a space-related intergovernmental event.¹⁰⁷ Although at that time private entities' participation in outer space activities was limited, and many advocated that at no point could space become commercially available to private companies,¹⁰⁸ COPUOS members saw the prospects and took a step toward greater inclusion of the commercial sector, at the very least just to raise awareness.

UNISPACE-III, held in 1999 in Vienna, has been by far the grandest international space conference with over two thousand and five hundred participants from over a hundred States and thirty international organizations. The agenda of the conference, themed "Space Benefit for Humanity in Twenty First Century", considered a broad number of questions, ranging from promotion of cooperation between spacefaring nations and States lacking access to space technology, to environmental issues and assistance during disasters.¹⁰⁹ Since the adoption of the Vienna Declaration as a result of the Conference, an agenda item dealing with implementation of

¹⁰⁶ See, Международное космическое право [International Space Law], под ред. Жукова Г.П., Колосова Ю.М. – М.: Международные отношения, 1999. С. 50.

¹⁰⁷ *Id.* at 51.

¹⁰⁸ S.H. Bromberg, *Space Travel – 2005: A legal Odyssey into the Current Regulatory Environment for United States Space Adventures Pioneering the Final Frontier*, J. Air L. and Com. (2005), at 639, n1p644 ("from the beginning of the Space Age most American Policy makers assumed that [the] government [] would be the actor [] operating in space and thus made no allowance for private actors.").

¹⁰⁹ Report of the Third United Nations Conference on Peaceful Exploration and Use of Outer Space (Vienna, 19-30 July 1999), A/CONF.184/6.

the Declaration recommendations has been included in the agenda of the Scientific and Technical Subcommittee of COPUOS.¹¹⁰

The Conference's participation was far greater than the Committee's membership even in its current extended version. That signals that not only spacefaring nations and those immediately affected by space activities are interested in cooperation on some level. States consider it important to speak and to be heard. No matter the non-binding nature of the UNISPACE decisions, these conferences are justly viewed as major events in outer space cooperation.¹¹¹

1.2.3 Regional Space Cooperation: ESA

The European Space Agency (ESA) became a milestone in the development of international cooperation in outer space. Creation of ESA with its unprecedented level of coordination between the European States was a major development in international space cooperation, elevating the scope of cooperative activities to a new level. Since then several other regional space organizations have emerged, but for the purposes of the present analysis it is important to understand the reasons that have spurred regional cooperation in the first place.

After World War Two cooperation between European States intensified, bringing sovereign nations closer to each other and thus requiring a legal basis for productive cooperation, which later evolved into the European Union. Simultaneously, with the growing success of the Soviet Union and the United States, Europe, despite its paramount role in the world economy, was failing to keep up in outer space activities. By the late 1950s it was clear that cooperation within Europe was necessary to match the financial, technical and intellectual resources available to the Soviet Union and the United States. Europe did not want to be left behind.¹¹²

In the course of political debate the decision was made to create two separate organizations: the European Space Research Organization (ESRO)¹¹³ and the European Launcher

¹¹⁰ Implementation of the Recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III): plan of action proposed by the Office for Outer Space Affairs, Note by the Secretariat, A/AC.105/L.224.

¹¹ *Сf.*, Космос на рубеже тысячелетий. ЮНИСПЕЙС-III : документы и материалы [*Outer Space at the Millenium. UNISPACE-III: documents and materials*]. Отв. Ред. Яковенко А.В. – М.: Международные отношения, 2001. С. 11.

¹¹² See, F. Lyall and P. B. Larsen, Space law: A Treatise (2009), at 26.

¹¹³ Convention for the establishment of a European Space Research Organization, with annexed financial protocol, 528 U.N.T.S. 33 (June 14, 1962).

Development Organization (ELDO).¹¹⁴ The failed attempts to build and launch Europe-I and Europe-II satellites through coordination of these two organizations¹¹⁵ led to reorganization and creation of ESA pursuant to the Convention for the Establishment of the European Space Agency, which was opened for signature on May 30, 1975, and entered into force on October 30, 1980.¹¹⁶

The European Space Agency is a major actor in exploration and use of outer space:¹¹⁷ current ESA activities are exceptionally broad and range from procuring scientific experiments on the International Space Station to the ambitious Galileo program.¹¹⁸ It also participates in formation of space law through the internal procedures that it has developed, through negotiation of international agreements and through its implementation of international space practices.¹¹⁹

The Agency, being the most successful example of regional cooperation in outer space, has at least three underlying factors that predetermined its creation and development, thereby setting an example of prosperous regional space cooperation. The first factor is the economic, cultural, social, historical, as well as territorial closeness of European States. Outer space cooperation was launched against a background of an ongoing cooperation in other areas, thus preparing the ground for an unburdened flow of technology, personnel and equipment between the participating States.

Second, European countries on their own, though preserving their dominance in world economy and political influence, were not able to provide the same volume of resources as the Soviet Union and the United States, with their populations of several hundred million, vast territories and endless mineral resources. Thus, only through cooperation, read through merger of their respective resources, could they compete with the two major spacefaring nations. Complementarity of relatively small States, where every State is able to contribute to the

¹¹⁴ Convention for the establishment of a European Organization for the Development and Construction of Space Vehicle Launchers, with annexes (2), financial protocol, and protocol concerning the initial program, 507 U.N.T.S. 177 (March 29, 1962).

¹¹⁵ See, W. Brado, *The European Space Agency: Example of a Successful Regional Cooperation*, 13 J. Space L. (1985), at 169-170.

¹¹⁶ Convention on the establishment of a European Space Agency, 1297 U.N.T.S. 402 (May 30, 1975).

¹¹⁷ See, G. Lafferanderie, "European Space Agency," in R. Blanpain (ed.), *International Encyclopedia of Laws*, Supp. 20 (2005).

¹¹⁸ ESA Activities and News available at http://www.esa.int/Our_Activities/Space_News. [Retrieved on September 5, 2014].

¹¹⁹ See, F. Lyall and P. B. Larsen, Space law: A Treatise (2009), at 25.

program, be it by means of territory, intelligence, technology, people or high-quality materials, smoothed controversies and eased cooperation.

Finally, a flexible approach is endorsed in the ESA Convention. On the one hand, it has established a firm ground for effective cooperation through mandatory participation, and on the other, has left States with considerable freedom to pick and choose projects they are interested in and are able to meaningfully to participate in, thus creating an inherently adaptive system of cooperation.¹²⁰ Further it will be shown that ESA has more than one mechanism allowing States to adjust their level of involvement, at the same time stimulating broader participation.

Though one might argue relative importance of one factor over the other, it is undisputable that all three contributed to the creation of ESA as we know it today, a leader among international organizations in outer space, expanding not only its membership, but also the number of programs and projects it is supervising.¹²¹ Other regional organizations have been created, albeit none of them can boast of success at a level even comparable to that of ESA. None of the other organizations created has all three factors in place, though, as it will be shown further, regional cooperation is always based on the idea of regional closeness, which can be a result of social and cultural homogeneity, economic interdependence or geographic proximity.¹²²

1.2.4 International Satellite Organizations

The next major development in outer space cooperation occurred in the 1970s, when international satellite organizations, first universal and later regional, were created. "It was by the practical applications of space technology and the use of space telecommunications that the participation of private enterprises became an obvious fact."¹²³ Perspectives of commercial viability in the utilization of communications satellites instigated emergence of this type of organizations. All satellite organizations generally had a purpose of providing terrestrial satellite communications to end users, though each in addition contained organization-specific aspects.

http://www.interacademies.net/File.aspx?id=25593.

¹²⁰ *Cf.* Art. II.d, Art. VII Convention on the establishment of a European Space Agency. For an in-depth analysis of the mechanisms employed within the ESA structure *See*, I. Petrou, *The European Space Agency's Procurement System: A Critical Assessment*, 37 Pub. Cont. L.J. (2007-2008), at 141.

¹²¹ Cf., R.-M. Bonnet, V. Manno, International Cooperation in Space: The Example of the European Space Agency (1994); European Academies Science Advisory Council, European Space Exploration: Strategic Considerations of Human Versus Robotic Exploration (2014), November 16, 2014,

¹²² See, B.M. Russet, International Regions and the International System: A Study in Political Ecology (1967), at 11, cited in C. Archer, International Organizations (1992), at 47.

¹²³ E.R.C. van Bogaert, Aspects of Space Law (1986), at 283.

For example, the International Maritime Satellite Organization (INMARSAT) was initially focused on providing space segment necessary for improving maritime communications, thereby alleviating distress and improving safety of life, and enhancing management of ships, public correspondence and radio determination capabilities.¹²⁴ The Intersputnik International Organization of Space Communications (INTERSPUTNIK), created as a counterbalance to the International Telecommunication Satellite Organization (INTELSAT), which was established around the same time under aegis of the United States,¹²⁵ had the purpose "to promote strengthening and development of comprehensive economic, scientific, cultural and other relations via communication, and radio and television broadcasting through artificial Earth satellites."¹²⁶

Due to the specific, rather narrow purposes of these organizations in combination with the commercial character of their activities, they do not fit within the traditional notion of international cooperation of States. There are at least two features that distinguish international satellite organizations in this respect from other organizations, read more traditional ones. First, from the moment of establishment these organizations created and operated satellite communications systems, which meant international collaboration had to be developed in great detail at an altogether much more intensive level. Second, they had their own capital and worked based on the principle of financial self-sufficiency.¹²⁷

Most international satellite organizations created during the 1970s and the 1980s underwent a process of privatization in the early 2000s. On the one hand, this was caused by the inherent focus on financial self-sufficiency and the need to maintain capital and engage in other purely commercial activities. The cumbersome structure of a traditional international organization with its lengthy decision making procedures made this if not impossible at all, complicated at the very least.

 ¹²⁴ See, D. Sagar and P. K. McCormick, "Inmarsat," in P.K. McCormick and M.J. Mechanick (eds.), *The Transformation of Intergovernmental Satellite Organizations: Policy and Legal Perspectives* (2013), at 37.
 ¹²⁵ See, V.S. Veshchunov, "Legal Reform of INTERSPUTNIK in the Light of Commercialization of its Activity in

International Organizations and Space Law," in *Proceedings of the Third ECSL Colloquium*, Perugia, Italy 6-7 May 1999 (1999), at 78.

¹²⁶ Документы, принятые Договаривающимися Сторонами по вопросу вступления в международную организацию космической связи «Интерспутник» [Documents Adopted by the Contracting Parties Regarding Accession to the International Satellite Organization "Intersputnik"], - М., 1984. С. 4.

¹²⁷ Сf., Стовбун В.Д. Особенности организации космической связи «Интерспутник» в качестве оперативной (эксплуатационной) организации [Specific Characteristics of the Satellite Organization «Intersputnik» as an Operational Organization]. Исторические, философские, политические и юридические науки, культурология и искусствоведение. – Тамбов: Грамота, 2009. № 3(4), С. 193.

On the other hand, the 1990s were marked by a growing trend toward commercialization of outer space activities. Although until the 2000s this did not evolve into 'pandemic' commercialization, as this will be discussed below, the overall trend toward greater inclusion of private entities prompted international organizations to adapt to changing circumstances in order to compete effectively in a new market situation.¹²⁸ As a result, by the 2000s three former international satellite organizations were transformed into private entities, at the same time preserving 'residual international organizations' in order to comply with their international obligations and thus creating a whole new environment for outer space activities.

1.2.5 International Space Station

The creation of the International Space Station (ISS) definitely altered the perception of space cooperation and space projects in general. The Space Station was a challenging project not only from a legal perspective. As one author explained, "differing specifications, standards, and assumptions call for cooperation and compromise among participating nations."¹²⁹ But legal issues were the ones to define and shape the dynamics of this ambitious project. "The reality is that while the ISS provides a site where nations can live together and participate in similar research, these nations have fundamentally different legal traditions. The question becomes: how can peaceful cooperation between the members of different states be guaranteed as they live and work together on the same Space Station? The initial answer: an International Space Station Agreement."¹³⁰ Overview and analysis of the ISS and its legal regime deserves a separate book. Here the discussion is limited to the effects of the ISS project on the space cooperation environment. What were the prerequisites for cooperation, and what have we learned about international cooperation of States in outer space with the launch of the Station?

Development of the ISS project began with President Reagan's announcement in 1984 that the United States intended to build a permanently inhabited civil space station in Earth orbit with the proposed name 'Space Station Freedom'.¹³¹ Other countries, including Canada, Japan

¹²⁸ Cf., Katkin K. Communication Breakdown?: The Future of Global Connectivity after the Privatization of INTELSAT, Int'l J. of Com. L. and P. (2005).

¹²⁹ M. C. Devlin, W. G. Schmidt, *Legal Issues Continue to Surround the International Space Station*, 8 U.S. A.F. Acad. J. Legal Stud. (1997-1998), at 237.

¹³⁰ *Id.* at 237-238.

¹³¹ See, R. Moenter, *The International Space Station: legal Framework and Current Status*, 64 J. Air L. & Com. (1998-1999), at 1033.

and European countries, were invited to participate in this project. After years of negotiations, in 1988 an initial Intergovernmental Agreement,¹³² setting forth general principles for carrying out the ISS mission, was signed by the United States, member States of the European Space Agency, the Government of Japan and the Government of Canada. While the Soviet Union was not invited to join the Freedom project, the Reagan administration about the same time indicated its willingness to resume space cooperation and readiness "to work with the Soviets on cooperation in space in programs which are mutually beneficial and productive."¹³³

Dismemberment of the Soviet Union in 1991 introduced changes not only to the lives of the former Soviet republics, but also to the ISS project. On the one hand, the 'Evil Empire', in President Reagan's words, ceased to exist,¹³⁴ thus cancelling an immediate communist threat and bringing Russia and other newly created States closer to the Western ideology and economy. On the other hand, Soviet and later Russian engineers and space specialists had the greatest experience in long-term manned space flights by way of experience in operating the Mir space station.¹³⁵ Another factor, doubtless, played a role as well: in 1993 President Clinton ordered NASA to redesign the space station again to reduce costs. But it soon became clear that even spending US\$ 9 billion in the next five years – the ceiling of the allowed spending – was not enough to build the space station. By adding Russia to the program, NASA asserted that a more capable space station would be ready sooner and at a less cost to the United States.¹³⁶

On September 2, 1993, the White House announced that preliminary agreement had been reached to merge the Russian and American space station programs. From then on a new phase in the ISS project has begun. A former Cold War enemy has become an indispensable partner in the new large-scale space mission.

By 1996 NASA and its Russian counterpart prepared a Memorandum of Understanding that made Russia a full partner in sharing ISS accommodations, resources, responsibilities, and

¹³² Agreement among the United States of America, governments of Member States of the European Space Agency, the government of Japan, and the government of Canada on Cooperation in the Detailed Design, Development, Operation and Utilization of the permanently Manned Civil Station, Sept. 29, 1988.

¹³³ R. Sagdeev, S. Eisenhower, *United States – Soviet Space Cooperation during the Cold War*, November 16, 2014, http://www.nasa.gov/50th/50th_magazine/coldWarCoOp.html.

¹³⁴ See e.g., Reagan refers to U.S.S.R. as "evil empire" again, March 8, 1983, October 8, 2014,

http://www.history.com/this-day-in-history/reagan-refers-to-ussr-as-evil-empireagain.

¹³⁵ See, Marcia S. Smith, 93017: Space Stations (updated December 12, 1996), September 8, 2014, http://fas.org/spp/civil/crs/93-017.htm.

costs.¹³⁷ Having the Memorandum in place, the 1988 Agreement no longer reflected the actual situation, thus requiring its renegotiation.¹³⁸ That might have been a simple question should only two States be parties to a treaty, but with a dozen more partners, whose relations with the former Soviet Union had been neutral at most,¹³⁹ this task was a true test of the will to cooperate, negotiate in a friendly way, and work hard toward mutually acceptable terms.

It took another two years, extending the overall negotiation period to long five years, to sign a new Intergovernmental Agreement in 1998, finalizing the legal basis for the space project featuring an "unprecedented technical, managerial, and international complexity," making it perhaps the most complicated and difficult international peacetime effort ever undertaken.¹⁴⁰

The ISS regime is construed of four levels of legal agreements, where the Intergovernmental Agreement (IGA)¹⁴¹ is the basis, and the Crew Code of Conduct is the most specific document. The multi-layered construction of the legal regime presupposed a complex system of cooperation, which at the same time was flexible enough to allow constructive collaboration of all States involved,¹⁴² in order to make this gigantic system actually work. For the purposes of this part of the book, just a few features representing exemplary cases of multilateral cooperation toward a common goal will be mentioned.

In the IGA's Preamble States declared their conviction that work on the ISS project "will further expand cooperation through the establishment of a long-term and mutually beneficial

¹³⁷ See, R. Moenter, *The International Space Station: Legal Framework and Current Status*, 64 J. Air L. & Com. (1998-1999), at 1034.

¹³⁸ Some authors suggest that the initial Agreement had to be renegotiated because of the vagueness of the language and complexity of the text. *See*, M. C. Devlin, W. G. Schmidt, *Legal Issues Continue to Surround the International Space Station*, 8 U.S. A.F. Acad. J. Legal Stud. (1997-1998), at 239.

¹³⁹ R.M. Bonnet, V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 81 ("Until April 1990 – apart from a legal instrument regulating exchange of scientific information – ESA did not have a formal cooperative agreement with the USSR.").

¹⁴⁰ See, R. Moenter, *The International Space Station: Legal Framework and Current Status*, 64 J. Air L. & Com. (1998-1999), at 1035.

¹⁴¹ Agreement among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station, Washington, done 29 January 1998, entered into force 27 March 2001; T.I.A.S. No. 12927.

¹⁴² E.g., Art. 7.1.d of the Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the Russian Space Agency Concerning Cooperation on the Civil International Space Station provides for a mechanism of appeal by the RSA of the decision made by the Space Station Control Board Chairman, chaired by NASA, in cases when consensus could not be reached. Any such decision may be appealed to the NASA-RSA Program Coordination Committee. Pending resolution of appeals, RSA need not proceed with the implementation of the decision in question as far as its provided elements are concerned. This provision was seen by Russian scholars as a major success in negotiations with the United States. *Cf.*, Международное космическое право [*International Space Law*], под ред. Жукова Г.П., Колосова Ю.М. – М.: Международные отношения, 1999. С. 180.

relationship, and will further promote cooperation in the exploration and peaceful use of outer space." The objective of the Agreement "is to establish a long-term international cooperative framework among the Partners, on the basis of genuine partnership." The genuine partnership clause is further elaborated in articles dealing with registration, jurisdiction and control, providing for each Partner's registration of the flight elements it delivers. In Article 6 this principle is furthered by a mutual obligation not to transfer ownership of the Station's elements to non-parties without prior consultation and concurrence of all Partners, thereby creating stability and predictability in the Station's operations.

Management is organized on a multilateral basis, and consensus is acknowledged as a preferable method in the decision-making process. Article 9's approach of a 'fixed share' of experimental time in exchange for provided services is another notable feature. Utilizing this scheme, the States effectively adopted a 'barter' approach to their services, where each transaction is not being scrutinized for its respective value, but is presumed to be as valuable as the other service rendered in exchange. By way of introducing this mechanism cooperating States eliminated time-consuming estimates of provided user elements and infrastructure elements, which were likely to cause conflicts and misunderstandings, thus leaving one less thing to argue about.

In the same vein, the Partners have agreed to cooperate with regard to evolution of the project proposals,¹⁴³ to consult in case of funding shortages,¹⁴⁴ and have acquiesced to a broadly construed cross-waiver of liability.¹⁴⁵ Effective regulation of questions of customs and immigration, intellectual property and criminal jurisdiction is another example of a successful, albeit lengthy, negotiation process in order to achieve a common goal through cooperation.

Despite the general tendency toward equal partnership, consensual decision making and adherence to multilateral consultations as a way to resolve controversies, participation of fifteen States in construction, launch, exploitation and development of a permanently inhabited space station needs a point of gravity, that is someone responsible for coordination. The United States plays a central role in the cooperative scheme of the ISS, though not in a sense depicted by some

¹⁴³ Art. 14 of the IGA.

¹⁴⁴ Art. 15 of the IGA.

¹⁴⁵ Art. 16 of the IGA.

Russian scholars as an effective usurper of power thanks to its financial capacity,¹⁴⁶ but as a mere coordinator of the Partners' scattered activities. Article 1 of the IGA states: "Partners will join their efforts, under the lead role of the United States for management and coordination." Notwithstanding the broad wording, the United States has not acquired 'privileged' rights compared to other partners. The special role of the United States includes responsibility "for overall program management and coordination,"¹⁴⁷ for planning and managing "launch and return transportation services for the Space Station in accordance with the integrated traffic planning process"¹⁴⁸ and for convening "multilateral consultations at the earliest possible time, to which it shall invite all the Partners" upon request of any Partner that the arisen matter is appropriate for consideration of all Partners.¹⁴⁹

In the end, the parties have managed to achieve the right balance between equal rights of each participating State and the practical need to coordinate efforts in order to use available resources most effectively. Keeping in mind the initial background behind the project and the lengthy negotiation between fifteen States that led not only to the successful development of the legal basis for cooperation, but indeed to outstanding practical results of cooperation that mankind has been observing for the last 15 years, the high appraisal of the project in legal circles is not surprising. Zhukov noted that "as a result of lengthy negotiation between delegations of Partners over the ISS, an unprecedented system of mutual legal obligations both in outer space, and on the Earth was created."¹⁵⁰ Another scholar characterized the IGA as an "unprecedented synthesis of politics and technical elements necessary for the named project."¹⁵¹

1.2.6 Contemporary Trends: Commercialization, Space Traffic Management, Space Debris During the past half century States have gone a long way from national hour-long space

flights to multinational long-term permanently inhabited space stations, from the first satellites providing low resolution data available only to the national military to high resolution remote

¹⁴⁶ See, Девятьяров Е. Подробности о подписанных документах по МКС [Details of the Signed ISS Documents]. Новости космонавтики \mathbb{N}_{24} , 1998.

¹⁴⁷ Art. 7(2) of the IGA.

¹⁴⁸ Art. 12(3) of the IGA.

¹⁴⁹ Art. 23(2) of the IGA.

¹⁵⁰ Международное космическое право [*International Space Law*], под ред. Жукова Г.П., Колосова Ю.М. – М.: Международные отношения, 1999. С. 180.

¹⁵¹ Яковенко А.В. Международно-правовые проблемы международных программ исследования и использования космоса [International Legal Problems of International Programs in Exploration and Use of Outer Space]. М., 2001. С. 7.

sensing systems and publicly accessible positioning services, from rivalry to cooperation on a basis of genuine partnership. "Overall, the core of the paradigm-change affecting mankind's activities in outer space can be summarized as follows: *the development of new applications with a "down-to-earth", practical orientation – that is, distinct from the politico-military or scientific orientation hitherto ruling the human space endeavor – in turn involving a shift in the categories of such participants.*"¹⁵²

Cooperation, whether in the format of a multilateral forum promoting discussion of contemporary issues and development of treaties, or in the format of an international organization operating satellites, has always been a response to technical, scientific, economic and political changes. Extraordinary legal and physical characteristics of outer space spurred international cooperation of States in the area.¹⁵³ As human knowledge about outer space expands, as humanity gets used to space technology and demands more innovations that space exploration can bring, as outer space exploitation becomes not only a lofty activity for the benefit of all mankind, but also a profitable business, new challenges, unpredictable only a decade ago, emerge.

The most acute and most widely discussed modern trend in the space industry is commercialization. The generic term includes an array of planned and ongoing projects that include private entities as the major moving power. This group includes, among others, satellite ownership and operation by private companies, private manned space flights, construction and operation of cargo space ships by private companies and space tourism. The exciting prospect of having space flights as readily available as airplane flights thus seems more real than ever. But lawyers express concerns about development of an appropriate legal regime.

Commercialization, whatever shape it takes, raises a whole set of unregulated issues. Commercial operation of satellites, and selling and buying satellites that are already in orbit pose questions of responsibility and liability.¹⁵⁴ Space tourism,¹⁵⁵ or trips of non-professional

¹⁵² F.G. von der Dunk, *As Space Law Comes to Nebraska, Space Comes Down to Earth*, 87 Neb. L. Rev. (2008-2009), at 505.

¹⁵³ Cf., L. Minwen, "Evolution from Policy towards Law: International Cooperation in the Peaceful Uses of Outer Space," in *Proceedings of the International Institute of Space Law 2013* (2014), at 622.

¹⁵⁴ For a detailed discussion *see*, B. Schmidt-Tedd and M. Gerhard, "Registration of Space Objects: Which are Advantages for States Resulting from Registration?," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 121-40; F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 52-53.

¹⁵⁵ See, A. Farand, "Regulating Space Tourism: Impact of Registration Requirements and Exposure to Liability", in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air*

astronauts to outer space, questions whether these tourists are eligible for a status of an astronaut as an 'envoy of mankind', or whether a status of a 'flight participant', whatever this legal term encompasses, is more adequate.¹⁵⁶ The prospect of suborbital flights demands a decision on what outer space actually is and where it begins. Does it begin at 100 km, as Russia has argued multiple times,¹⁵⁷ or maybe outer space begins at the 'von Kármán Line', the "point where aerodynamic lift yields to centrifugal force?"¹⁵⁸ Multiple other suggestions have been made,¹⁵⁹ and this question was put up for discussion within the International Civil Aviation Organization even before the Sputnik I launch,¹⁶⁰ but until now no conclusion has been reached.

A logical extension to the previous issue is a prospective need for the space traffic control system akin to the modern air traffic control system. Despite the undoubted sovereignty of each State over its airspace, States are willing to 'give up' a part of their sovereign rights in order to achieve safety, predictability and a necessary level of coordination in airspace flights. No one questions the need for the International Civil Aviation Organization as an international coordinating and regulatory agency simply because it is not feasible to establish a similar regime of control and coordination by national means. It is then plausible to suggest that the same tendencies would work toward a unified international space traffic regime.

Dealing with space debris is another matter on the international space agenda.¹⁶¹ It is estimated that currently there are 29,000 objects over 10 centimeters, 60,000 objects greater than 5 centimeters, 700,000 objects bigger than 1 centimeter, and 200 million objects greater than 1

¹⁶¹ Cf., L. Minwen, "Evolution from Policy towards Law: International Cooperation in the Peaceful Uses of Outer Space," in *Proceedings of the International Institute of Space Law 2013* (2014), at 638.

and Space Law at the Edge of the 21st Century (2006), at 239. (The expression "space tourism" broadly defined by S. Hobe and J. Cloppenburg as "[...] any commercial activity offering customers direct or indirect experience with space travel" emphasizes somewhat that space tourism does not necessarily equate today with activities taken place in outer space.)

¹⁵⁶ For discussion *see*, F. Lyall and P.B. Larsen. *Space law: A Treatise (2009)*, at 130-34; Y.A. Faliat, *Space Tourism: A Synopsis in its Legal Challenges*, 1 I. L.J. 120 (2012), at 122-28; J. Cloppenburg, "Legal Aspects of Space Tourism," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 201-04.

 ¹⁵⁷ E.g., United Nations Committee on the Peaceful Uses of Outer Space, *Questions on the Definition and Delimitation of Outer Space: Replies from Member States*, 21 February 2012, A/AC.105/889/Add.10.
 ¹⁵⁸ S.B. Rosenfield, *Where Air Space Ends and Outer Space Begins*, 7 J. Space L. (1979), at 139.

¹⁵⁹ See, T.W. Goodman, *To the End of the Earth: a Study of the Boundary between Earth and Space*, 36 J. Space L.

^{(2010),} at 87.

¹⁶⁰ Press Release, International Civil Aviation Organization Aviation Organization, Outer Space Sovereignty Agreement Needed (Apr. 4, 1956), http://www.icao.int/icao/en/nr/1956/pio195606_e.pdf.

millimeter in orbit around the Earth.¹⁶² The geostationary orbit, being an extremely valuable and limited resource, requires an efficient system of operation. In the beginning of 2012 there were 406 active satellites and 1307 systematically observed objects, where the number of active satellites increased by 10% in five years, and the number of observed objects increased by 16%.¹⁶³ While the International Telecommunication Union maintains efficient procedures for coordinating telecommunications with a view to ensure optimal, fair and rational use of the radio frequency spectrum,¹⁶⁴ space debris continues to multiply even in this vitally important orbit. To make things worse, these counts are likely to increase, even if no more debris is created by human activity, because of what is called the 'Kessler syndrome': the collisional cascading process whereby large pieces of space debris get hit by smaller pieces, creating hundreds or thousands of new pieces of small debris, which can collide with other large pieces.¹⁶⁵

Relative success has been achieved by adoption of the Space Debris Mitigation Guidelines by COPUOS, which were endorsed by the United Nations General Assembly in Resolution 62/217 in 2007.¹⁶⁶ The success is relative because these are technical measures rather than legally binding rules. Scholars have opined, however, that due to increasing utilization of the guidelines by major spacefaring nations as the key element of licensing schemes in domestic context, thereby transforming them into binding law on the national level, both elements allowing identification of international custom will soon grow substantially sufficient to support formation of relevant customary legal obligation.¹⁶⁷ Generally supporting the last opinion, the Guidelines are of somewhat limited influence on the contemporary state of outer space pollution because they are only applicable to the mission planning and the design of spacecraft and

¹⁶² See, C. Wiedman and P. Vorsmanns, *Space Debris – Current Situation*, Fifty first session of the Legal Subcommittee of the Committee on Peaceful Uses of Outer Space, 2012, September 16, 2014, www.unoosa.org/pdf/pres/lsc2012/tech-02E.pdf.

¹⁶³ See, L. Perek, "Actual Situation in the Geostationary Orbit," in International Institute of Space Law, *Proceedings* of the International Institute of Space Law (2012), at 610, 611.

¹⁶⁴ *Id*. at 612.

¹⁶⁵ See, B.C. Weeden, Overview of the Legal and Policy Challenges of Orbital Debris Removal, IAC-10.A6.4.4, 61st International Astronautical Congress, Prague, Czech Republic, 2010, cited in A.C. van Oijhuizen Galhego Rosa, "The Current and Future Efforts for Reaching Long-Term Sustainability of Outer Space: Is It the Time to Develop Legally Binding Rules Related to Space Debris?," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 764.

¹⁶⁶ UN Doc. A/RES/62/217.

¹⁶⁷ See, F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 104-05.

orbiting stages that will be sent into Earth orbit,¹⁶⁸ rather than aimed at eliminating debris that are already present in orbit.

Prospective measures to deal with the space debris problem often include establishment of Space Situational Awareness, space traffic management akin to air traffic management discussed earlier, space debris removal mechanisms¹⁶⁹ and the law of salvage adapted from international maritime law.¹⁷⁰ Currently the issue is under discussion within the COPUOS Scientific and Technical Subcommittee as a separate agenda item. In 2010 the Czech Republic introduced a Working paper suggesting review of the Space Debris Mitigation Guidelines in order to transform these into a binding set of legal principles.¹⁷¹ The majority of the proposed and ongoing efforts in dealing with the space debris problem are conducted on an international multilateral level. Although only three countries, that is China, Russia and the United States, are responsible for 90% of all space debris,¹⁷² this is an issue that poses a potential threat to all States, and no State is capable of dealing with it on a national level.

Prospective exploitation of celestial bodies is another field of the future use of outer space requiring international cooperation on a broad scale. The low level of support for the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies,¹⁷³ owing to the ambiguous wording of the 'common heritage of mankind' concept introduced in Article 11, effectively prevented establishment of a legal regime concerning the Moon and other celestial bodies' exploitation. Resolution of this deadlock is only feasible through international legal cooperation based on the methodology encompassed in Article II of the Outer Space Treaty. Adoption of any other method would effectively put cooperating States in breach of the

¹⁷⁰ See, M. Schaefer, "Analogues between Space Law and Law of the Sea/International Maritime Law: Can Space Law Usefully Borrow or Adapt Rules from These Other Areas of Public International Law?," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 316.

¹⁶⁸ *Cf.*, Report of the International Interdisciplinary Congress on Space Debris, at 26, cited in A.C. van Oijhuizen Galhego Rosa, "The Current and Future Efforts for Reaching Long-Term Sustainability of Outer Space: Is It the Time to Develop Legally Binding Rules Related to Space Debris?," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 766.

¹⁶⁹ See, A.C. van Oijhuizen Galhego Rosa, "The Current and Future Efforts for Reaching Long-Term Sustainability of Outer Space: Is It the Time to Develop Legally Binding Rules Related to Space Debris?," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 768-771.

¹⁷¹ Working Paper submitted by the Czech Republic at the 50th session of the COPUOS Legal Subcommittee, March 2011. *See*, UN Doc. A/AC.105/C.2/L.283.

¹⁷² See, M. Schaefer, "Analogues between Space Law and Law of the Sea/International Maritime Law: Can Space Law Usefully Borrow or Adapt Rules from These Other Areas of Public International Law?," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 317.

¹⁷³ As of 2014, only 16 States have ratified the treaty. See, Status of International Agreements relating to Activities in Outer Space as of January 1, 2014, A/AC.105/C.2/2014/CRP.7.

Outer Space Treaty, which not only boasts wide support, but is also believed by many to have transformed into customary international law,¹⁷⁴ thus binding all States except persistent objectors.

1.2.7 Concluding Remarks

Overall, international cooperation should be seen as one of the possible effective solutions to the issues discussed above. It has been suggested that "international cooperation is currently the most likely way forward in many fields, particularly given the vast investment that space activities require."¹⁷⁵ There might be an argument as to what extent such cooperation is necessary: would it be needed only as a first step toward new legal solutions, or should it be a full-scale cooperative effort with the aim of negotiating, developing and adopting a new mechanism of cooperation? Such debates aside, it is premature to underestimate the role of international legal cooperation in the future of space law. During the fifty-third session of the COPUOS Legal Subcommittee the view was expressed that international cooperation would continue to be a necessary basis for dealing with new challenges, such as ensuring long-term sustainability of space activities and promoting peace and security in order to enable sustainable development of all countries.¹⁷⁶

As has been mentioned above, States have created dozens of mechanisms, entities, documents and other means of cooperation in outer space. As it has been eloquently summarized, "the most outstanding character of the current international cooperation in the space field is its extent, from the simple exchange of information to the use of installations and the enforcement of programs common to two or more partners, and the extreme range of its forms and the very fragmented character of this cooperation in the present international order. The result of all this is a multiplicity of functions, a plurality of structures – which have been created for historical and political reasons or to satisfy the requirements of some users – with a probably unavoidable risk of conflicts of interests."¹⁷⁷ In other words, different goals of cooperation call for different

¹⁷⁴ See, B.D. Lepard, Customary International Law: a new theory with practical applications (2010), at 198; M.P. Scharf, Customary International Law in Times of Fundamental Change (2013), at 58.

¹⁷⁵ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 563.

¹⁷⁶ Draft Report of the United Nations Committee on Peaceful Uses of Outer Space Legal Subcommittee, 53rd session, 24 March – 4 April, 2014, para. 29. A/AC.105/C.2/L.294/Add.2.

¹⁷⁷ S. Courteix, "Towards a World Space Organization," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 424.

methods. A specific project involving only two States, development of a commercially viable satellite communication network or prevention of outer space militarization – all three require substantially different approaches to cooperation, where membership, forum, rules, structure, voting procedures, implementation, level of participation and compliance measures vary dramatically.

In the light of the above, two spheres of international legal cooperation are excluded from the present research. First, questions of militarization will not be addressed here. Military and weapon-related issues are plagued by political conjuncture, financial bargains and other visible and secret considerations of the States involved. Although some methods employed in dealing with militarization issues would have been of interest for the legal analysis of mechanisms of cooperation (especially the United Nations Conference on Disarmament), this area is deliberately excluded to avoid the temptation to move into political assessments instead of focusing on legal issues that can and should be analyzed objectively.

Second, international satellite organizations are excluded from the analysis. The International Telecommunications Satellite Organization, the International Mobile Satellite Organization and the European Telecommunications Satellite Organization, being the major players in international satellite communications, share a similar history and face similar challenges. Initially, each of these organizations was created to operate organization-owned satellites and to provide communication services in accordance with their constituent documents. However, in 2001 all three underwent a major restructuring by transferring all assets to private entities, though simultaneously preserving structures of international organizations. Nowadays the residual international organizations fulfill very specific functions.¹⁷⁸

For example, the International Telecommunications Satellite Organization monitors and interfaces with Intelsat, Ltd., the commercial telecommunications entity it supervises, to ensure the availability of international public telecommunication services to all countries in the world.¹⁷⁹ The International Mobile Satellite Organization oversees certain public safety and security communication services provided via the Inmarsat satellites, and the European Telecommunications Satellite Organization is ensuring that Eutelsat S.A. – the private entity that

¹⁷⁸ Cf., P.K. McCormick and M.J. Mechanick (eds.), *The Transformation of Intergovernmental Satellite* Organizations: Policy and Legal Perspectives (2013).

¹⁷⁹ P. Masambu, "ITSO, IMSO and EUTELSAT: the History, the Legal Instruments and the Legal Challenges," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012), at 845.

owns all assets and conducts operational activities – observes principles of public service obligations, pan-European coverage of the satellite system, non-discrimination and fair competition.¹⁸⁰

This brief overview of the powers and functions of the three international satellite organizations, which can be justly characterized as residual, leads to the conclusion that they are very specific in both nature and scope of their activities. Unlike most international organizations, these three do not have a general mandate, neither do they have a special mandate in an international legal sense – their mandate is strictly limited to relations between the organization and the supervised private entity. Each organization has an important, but simultaneously narrow supervisory role: to ensure availability of international public telecommunication services on a non-discriminatory basis.¹⁸¹

There are several other international satellite organizations, notably INTERSPUTNIK and the Arab Satellite Communications Organization (ARABSAT), that have not gone through a privatization procedure and thus retain ownership of satellites along with the broad powers of an international organization.¹⁸² These organizations will be excluded from the analysis as well, because they too have specific features that allow characterizing them as *sui generis* entities. For example, in 2005 within the INTERSPUTNIK system a private entity Intersputnik Holding was created. Although it has not gained control over the organization's assets, it still participates in commercially oriented activities of the organization.¹⁸³ ARABSAT currently operates without a private entity, and its constituent documents directly prohibit participation of private capital in organization's financing.¹⁸⁴ But new market realities might push it toward reorganization following the path of other international satellite organizations.

By and large, these international satellite organizations, especially those that underwent reorganization, constitute a separate species in the system of international legal institutions. Although analysis of these international satellite organizations presents an interesting and challenging topic, the results of such an analysis are unlikely to be valuable for the purposes and goals of the present book. This is so mostly because of the high level of their specificity and the

¹⁸⁰ *Id.* at 846, 848.

¹⁸¹ *Id.* at 853.

¹⁸² Cf., F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 364-75.

¹⁸³ For more information see, www.intersputnik-holding.ru/eng [Accessed November 16, 2014].

¹⁸⁴ For more information *see*, www.arabsat.com [Accessed on November 16, 2014].

low probability of reproducing such a structure in any other currently developed area of outer space exploitation apart from satellite communications.

1.3. Analysis Criteria: A Way to Classify Mechanisms of Cooperation

This part of the work will outline the methodological approach of the ensuing analysis. First, an overarching methodology of the analysis will be presented. Particularly, it is argued that four broad categories of cooperation exist, but only three of those can be defined in sufficiently precise terms. The category of 'soft law', as argued above, is too amorphous to be defined and therefore to be a proper subject of the research aiming to analyze a variety of different mechanisms of cooperation using a uniform set of criteria, attempting to draw coherent and comprehensive conclusions as a result of such a research. Second, the criteria for the analysis of the mechanisms of cooperation in outer space will be proposed. Application of the proposed criteria will allow identifying distinctive features of each analyzed mechanism, along with general attributes characteristic for a category of cooperation it belongs to. Such features and attributes will also serve as a basis for the conclusions with respect to the intensity of cooperation within the respective mechanism and category of cooperation, and with respect to the limits of cooperation achievable using such a mechanism and respective category of cooperation. It should be underlined that application of the proposed criteria is not a goal in its own right, but rather an intermediary step in attainment of the general goal of the book, and thus should be viewed from such perspectives as appropriateness, effectiveness and overall success.

At the outset the term 'mechanism of cooperation' should be defined. The OXFORD DICTIONARY defines a mechanism as "a natural or established process by which something takes place or is brought about."¹⁸⁵ BLACK'S LAW DICTIONARY defines the term cooperation as a "voluntary coordinated action of two or more countries occurring under a legal regime and serving a specific objective."¹⁸⁶ Thereby, a mechanism of cooperation should be understood as an established process defining legal measures and methods for coordinated activities in achievement of a specific objective. A mechanism of cooperation is a process that can be described in precise legal terms, which creates a concrete procedure for achievement of a

¹⁸⁵ New Oxford American Dictionary, Mechanism, OS version (2015).

¹⁸⁶ Black's Law Dictionary, "Cooperation", 10th ed. (2014), Westlaw Next.

specific objective. The latter characteristic means that the mechanism of cooperation is created to attain a particular goal, while a mere utilization of diplomatic and other ordinary means of inter-State communication does not amount to a separate mechanism of cooperation.

1.3.1 Methodology

Cooperation is an abstract concept. Cooperation does not necessarily have tangible manifestations, nor would any tangible manifestations necessarily lead to a conclusion that cooperation exists. One consequence is that in order to analyze cooperation, one has to draw the limits of the subject matter. The other consequence is that any analysis is bound to be incomplete, because any definition of cooperation would most likely exclude certain incarnations of this abstract concept.

International legal cooperation has been shaped by thousands of years of civilization, from ancient Rome and Greece and Egypt, all the way to the complex international networks of the twenty-first century. Modern international legal cooperation has not only become more complex and intricate, but also much more diverse. The recent decades have seen creations of forums, groups, committees, commissions and assemblies, pursuing cooperative goals with varying degrees of intensity and formalization. At the same time, traditional treaties and international organizations continue to be the pillars of international legal cooperation.

Conceptually, international legal cooperation can be described as a continuum, where the starting point is the least formalized approach to cooperation, say informal bilateral talks between representatives of two States. Progressing along the continuum, more formal approaches to cooperation emerge. Political declarations made during an international conference are much more formal compared to informal bilateral talks, but they still lack legal force. A whole range of legally non-binding but politically important documents represent a significant part of the continuum. Institutional formalization of the cooperative process signals a new milestone on the continuum. Legal force of the documents is another milestone. Formalization of legal norms in the form of a treaty signals achievement of the second highest degree of formalization of the cooperative process. A traditional international organization that is entitled to adopt documents legally binding its members is the pinnacle of the cooperation continuum.

There are several consequences stemming from such an understanding of cooperation. First, there are only four milestones that can be clearly identified, that is: informal non-

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institutionalized cooperation, informal institutionalized cooperation, formal non-institutionalized cooperation and formal institutionalized cooperation. In plain English that means that the continuum begins from 'soft law', continues to international conferences, then to treaties and concludes with international organizations.

But there is a multitude of other approaches to cooperation, which would fall somewhere between these milestones, but which at the same time do not represent milestones themselves. For example, customary international law creates legal obligations, so should be very close to treaties; but because of its non-formalized nature, it should be placed before the treaties on the continuum. At the same time, a plausible argument can be made that *ius cogens* norms, despite their non-formalized nature (or better, origin), should be placed after the treaties, signifying their importance for the legal international order and underlining their special role in shaping legal norms and obligations. In the end, only the named four categories have their firm places on the continuum, while all other variations of cooperation should be understood and analyzed against these categories and consequently be placed on the continuum based on their legal and institutional characteristics as compared with these four milestones.

Second, it has to be acknowledged that each identified category includes a variety of actual mechanisms, which may differ in certain elements and therefore fall into different places on the cooperation continuum. For example, an international organization not entitled to adopt legally binding decisions should be placed before the organization granted such right; however, both organizations should be on the right end of the continuum, following the treaties.

Finally, there is a possibility that certain mechanisms of cooperation possess elements from different categories and do not belong to any category more than to another. For example, an impromptu conference organized without formalization characteristic for traditional international organizations, might fall somewhere between the 'soft law' and the conference milestones. It is up to the researcher to define the elements of each category in such mechanisms. And it is a matter of the vantage point whether the researcher concludes that the mechanism belongs to one or the other category; it is similarly plausible that it does not belong to any category and rather represents a *sui generis* category fusing elements of more traditional categories to produce the unique result of a non-institutional conference.

This book analyzes international legal mechanisms of cooperation from international conferences all the way to international organizations. All cooperation to the left of the

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conferences is excluded from the analysis. 'Soft law' is an amorphous category that does not have a precise definition and continues to be controversial in the theory of international law. Role of a legally non-binding, or a 'soft law', regulation in international law has been extensively analyzed,¹⁸⁷ and up until now it remains a complex phenomenon that is not being understood uniformly.

As a result, much of the discussion since the 1960s has aimed to evade formal lawmaking process and categorizations by referring to everything not fitting the classic model as 'soft law'; the label has been attached to resolutions adopted by international bodies, to agreements involving non-state actors, to standards set outside the realm of clearly discernible law, to guidelines and codes of conduct emanating from international executive bodies, et cetera. While it is clear that much activity takes place here, it is not clear how the label 'soft law' helps to clarify things, and in fact, it may often even obfuscate things in that it suggests a legal relevance where none may be present, and without being able robustly to indicate why norms belong to either the hard law or the soft law category. Moreover, and arguably at least as important, the label of soft law sometimes suggests benevolence where, in actual fact, at issue is the management of society by executive bodies.¹⁸⁸

As the passage suggests, the term 'soft law' may be used to cover almost anything that does not fit into the traditional categories of conference, treaty and organization. 'Soft law' may be used as a term defining politically important but legally non-binding international documents, on a par with documents of purely private nature. Simultaneously, 'soft law' may exist only within the framework of informal relations between two States, and eventually evolve into a more formal instrument that is made public. In other words, 'soft law' may exist without the international community's knowledge about it, apart from those directly involved. The fact that only two States know about such an arrangement does not mean that it is less of cooperation; it is simply an informal cooperation between these two States, which have chosen to keep their relations private.

One can immediately see the problem here: when and how do we find out about such cooperation? But even if we are lucky and we do find out about this informal cooperation, how do we analyze it? There is no formal, or at least tangible product of such cooperation; there

¹⁸⁷ E.g., K.W. Abbott and D. Snidal, *Hard and Soft Law in International Governance*, 54 Int'l Organizations 421 (2000); A. Boyle, "Soft Law in International Law-making," in M. Evans (ed.), *International Law* (2014).
¹⁸⁸ J. Klabbers, "Of Round Pegs and Square Holes: International Law and the Private Sector," in P. Jurčys, P.L. Kjaer and R. Yatsunami (eds.), *Regulatory Hybridization in the Transnational Sphere* (2013), at 45.

might be even no minutes of the meeting. In such case the analysis would have to be based on the knowledge presumably available only to the author of the analysis, which his readers have no opportunity to check and verify. While the analysis might indeed be correct and insightful, academic writings cannot be credible unless the information it is based on is widely accessible.

The other side of the ambiguity in the definition of 'soft law' is that no agreement exists as to what mechanisms actually belong to the category. As a consequence, depending on the point of view, a different number of mechanisms would fall into the category. It is not the goal of the present book to resolve the ambiguity. Striving to produce a comprehensive analysis of a representative number of modern mechanisms of international cooperation in outer space, this book will focus on the analysis of those mechanisms that are widely believed to be the tools used in the course of international outer space cooperation. The international conference, international treaty and international organization categories are the only three categories that have uniform denotations that the majority of international law scholars agree on. While there might be no consensus about the exact definitions of these three categories, the elements that have to be present in each category can be identified.

The fourth category, 'soft law', lacks not only a widely accepted definition; it also lacks a uniform description. Analysis of this category, therefore, would always bear a mark of arbitrariness: with respect to the fact itself that such a category is identified, with respect to the mechanisms that belong to it, and with respect to elements that are deemed essential to the category in general and its mechanisms in particular. For this reason, the 'soft law' category is will not become the subject of the analysis of this book.

At the same time, the term 'soft law' has become an indispensable element of the international legal vocabulary and therefore will be used in the course of this work to refer to international acts adopted by international organizations or concluded between States, or between States and international intergovernmental organizations that do not create legal rights and obligations enforceable on the international plane, but might have political and moral value. This definition is proposed solely for the purposes of this book and is not intended to serve as a uniform definition applicable in other contexts.

As has been noted above, the other three categories of cooperation do not have uniform definitions accepted throughout the legal community, but there is a consensus about the elements these categories have to have. The definitions of a conference, treaty and organization as used in

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this book will be addressed in the next part of the chapter. Based on these definitions, six criteria will be proposed that allow designating each analyzed mechanism to a category of cooperation. But that is not the only and not the primary purpose of these six criteria and the analyses using these criteria.

Application of these criteria to each analyzed mechanism will highlight its distinctive legal and institutional features. Relying on the six criteria, the analysis will strive to discern the core values of cooperation using the analyzed mechanism of cooperation. Particularly, conclusions will be made about the intensity of cooperation achievable, about the results that have been achieved so far, about the results that can be effectively achieved, and about the changes that have to be made to make the mechanism the most effective. In other words, the virtues and the limits of the analyzed mechanism have to be understood.

The book's ultimate goal is to propose the most effective forms of cooperation for various activities in outer space. The analysis using six criteria will provide ample practical and theoretical material to draw the conclusions about the strengths and weaknesses of each particular mechanism. These conclusions will serve as a bypass toward the conclusions the book is aiming at, namely suggesting the most appropriate forms of cooperation for different types of cooperative projects. It should be recalled that forms and mechanisms are not the same. The concluding chapter of the book will address the differences between the two in greater detail and will propose classification of the mechanisms into forms of cooperation, simultaneously suggesting the areas of outer space activities where these forms would prove most effective. But in order to arrive at this conclusion, a step-by-step analysis as explained above should be first performed. It should be again stressed that the definitions of the three categories and the six criteria analysis are just the tools used to achieve the ultimate goal of the book and should be treated as such.

1.3.2 Definitions

Definitions of the terms 'international conference', 'international treaty' and 'international organization' should be agreed upon. An international conference is the least formalized way of cooperation. "There is an often heard precept: 'The Conference is the master

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of its own procedure'."¹⁸⁹ Thus, definition of a conference should fully reflect its procedural flexibility and inherent diversity.

Generally, a conference is understood as "a large meeting, often lasting a few days, where people who are interested in a particular subject come together to discuss ideas."¹⁹⁰ In legal literature the term is defined with more precision. A prominent Russian scholar proposed a definition of an international conference that emphasizes three characteristics: it is temporary, it must have representatives of at least three States, and it has goals agreed upon by the participants.¹⁹¹ The second characteristic reflects a common understanding of a conference as a 'large meeting', which is a rather arbitrary categorization. There are authors who argue that a conference exists only when at least four States are present,¹⁹² others argue that a bilateral conference is also a possibility.¹⁹³ With no definitive argument in favor of a specific number of participants or in favor of an unspecific description as a 'large meeting' – apart from an overgeneralized perception about what a conference should look like – it is suggested to drop this characteristic.

The following definition of the term 'international conference' is proposed for the purposes of the present book. An international conference is a temporary meeting consisting of official representatives of States and often intergovernmental and nongovernmental organizations' observers, following in its work an agreed-upon structure and rules of procedure, which has goals agreed upon by the participants, and is guided in its work by international law.

'International treaty' is a more formalized concept and requires a precise definition. Such definition already exists in international law, is believed by the majority of authors to have become a norm of customary law and is widely accepted by States. Article 2(a) of the Vienna Convention on the Law of Treaties defines an international treaty as "an international agreement concluded between States in written form and governed by international law, whether embodied

¹⁸⁹ J. Kaufmann, Conference Diplomacy: An Introductory Analysis (1988), 85.

¹⁹⁰ Macmillan Dictionary, Conference, available at

http://www.macmillandictionary.com/dictionary/british/conference.

¹⁹¹ Ашавский Б.М. Межправительственные конференции в системе международных отношений (международно-правовые аспекты подготовки и деятельности) [Intergovernmental Conferences in the System of International Relations (international legal aspects of preparation and activity)]. Диссертация на соискание ученой степени кандидата юридических наук. М., 1976. С. 28-29.

¹⁹² *Cf.*, D. Rusk, 'Parliamentary Diplomacy – Debate versus Negotiation', *World Affairs Interpreter*, XXVI (1955), at 121.

¹⁹³ Право международных организаций [*Law of International Organizations*], под ред. И.П. Блищенко, А.Х. Абашидзе. М.: Российский Университет Дружбы Народов, 2013. С. 323.

in a single instrument or in two or more related instruments and whatever its particular designation."¹⁹⁴ The definition limits the scope of the Convention to the treaties concluded only between States. In the present analysis such limitation should be considered unjustified.

The Vienna Convention is a result of the United Nations International Law Commission multi-year work, where the compromises and due considerations while 'packaging' the Commission's work product did not allow working on a broader topic combining international agreements with States-only participation and those with participation of international organizations.¹⁹⁵ Moreover, the Commentaries to the Draft Articles on the Law of Treaties in commentary to Article 1 explain that the decision to exclude treaties concluded by international organizations was made because "treaties concluded by international organizations have many special characteristics; and the Commission considered that it would unduly complicate and delay the drafting of the present articles if it were to attempt to include in them satisfactory provisions concerning treaties of international organizations."¹⁹⁶

It is proposed to expand this widely respected definition of a treaty by incorporating a formula endorsed in the Restatement of the Law, Third, Foreign Relations Law of the United States that a treaty is "an agreement between two or more states or international organizations."¹⁹⁷ And surely the Vienna Convention on the Law of Treaties between States and International Organizations and between International Organizations, ¹⁹⁸ even though it has not yet entered into force, reaffirms that inclusion of international organizations as subjects capable of becoming parties to international treaties is legally justified. Thus, an international treaty is defined as an international agreement concluded between two or more States or international organizations in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation.

One more caveat should be introduced. A growing practice of establishing institutional arrangements entrusted with the supervision of the implementation of a particular treaty, or with

¹⁹⁴ Art. 2 of the Vienna Convention on the Law of Treaties, done May 23, 1969, entered into force January 27, 1980. 1155 U.N.T.S. 331.

¹⁹⁵ Cf., S.D. Murphy, "Codification, Progressive Development, or Scholarly Analysis? The Art of Packaging the ILC's Work Product," in M. Ragazzi (ed.), *Responsibility of International Organizations: Essays in Memory of Sir Ian Brownlie* (2013), at 30.

¹⁹⁶ United Nations International Law Commission, *Draft Articles on the Law of Treaties with Commentaries*, Y.B. Int'l L. Comm'n, 1966, vol. II (1966), at 187.

¹⁹⁷ Restatement of the Law, Third, Foreign Relations Law of the United States (Revised), Vol. 1 (1987), at 149. ¹⁹⁸ Vienna Convention on the Law of Treaties between States and International Organizations and between

International Organizations, 21 March 1986, A/CONF.129/15. Not yet in force; 39 Signatories; 43 Parties.

review and development of such a treaty generally should not be considered a shift of a particular treaty into the realm of international organizations or conferences. It has been argued that such institutional arrangements commended with functions solely relating to the particular treaty are bodies not endowed with a distinct legal personality.¹⁹⁹ Since such arrangements lack international legal personality, they should not be viewed as a separate mechanism, but rather as an 'extension' of the treaty mechanism.

The definition of an international organization causes the most debates. Definitions range from a laconic: "International organization means intergovernmental organization,"²⁰⁰ to a page-long description of possible variations within a structure of an organization.²⁰¹ The Restatement of the Foreign Relations Law proposes a succinct definition of international organizations as "organizations that are created by an international agreement and have a membership consisting entirely or principally of states,"²⁰² adding in the commentaries that "whether an activity undertaken jointly by states is an organization with international personality may be a matter of degree,"²⁰³ thus leaving a room for broad interpretation of the legal personality element. Some authors suggest identifying basic characteristics that distinguish an international intergovernmental organization instead of proposing a full-fledged definition. These characteristics are: "(i) establishment by some kind of international agreement among states; (ii) possession of what may be called a constitution; (iii) possession of organs separate from its members; (iv) establishment under international law; and (v) generally but not always an exclusive membership of states or governments, but at any rate predominant membership of states or governments."²⁰⁴

The balanced and authoritative definition proposed by the International Law Commission is suggested as the most appropriate one for the purposes of this book. A wide scholarly respect for this definition²⁰⁵ and appreciation of the Commission's work in general²⁰⁶ underline

¹⁹⁹ Cf., P. Sands and P. Klein, Bowett's Law of International Institutions (2009), at 13.

²⁰⁰ Para. 2(2) of the Report of the International Law Commission on the Work of its 31st Session, 1979, Y.B. Int'l L. Comm'n 1979 (1979), at 189.

²⁰¹ See, e.g. Право международных организаций [Law of International Organizations], под ред. И.П. Блищенко, А.Х. Абашидзе. М.: Российский Университет Дружбы Народов, 2013. С. 30.

 ²⁰² Restatement of the Law, Third, Foreign Relations Law of the United States (Revised), Vol. 1 (1987), at 133.
 ²⁰³ *Id.* at 135.

²⁰⁴ C.F. Amerasinghe, *Principles of the Institutional Law of International Organizations* (2005), at 10.

²⁰⁵ Cf., M. Ragazzi (ed.), Responsibility of International Organizations: Essays in Memory of Sir Ian Brownlie (2013).

appropriateness of choosing it as the least controversial and as the most reliable one. In Article 2(a) of the articles on Responsibility of International Organizations prepared by the Commission and endorsed by the United Nations General Assembly, an international organization is defined as "an organization established by a treaty or other instrument governed by international law and possessing its own international legal personality. International organizations may include as members, in addition to States, other entities."²⁰⁷

As has been mentioned above, the definition of an international organization causes the most controversies among scholars. The following opinion explains, at least in part, why this is so:

There are still no general rules or principles relating to international bodies corporate to which we can automatically turn when in search of their personal law. We have no recognized body of such rules or principles even as regards the existing types of international body corporate; as regards possible further types of international body corporate we are entirely in the realm of speculation. For the existing types we have the constituent instrument of each the bodies concerned, amplified somewhat by its constitutional practice, and calling for interpretation in accordance with the general principles of treaty interpretation recognized by international law. But we have no international equivalent for the common law relating to corporation or the modern statutory regulation of the various types of corporation.²⁰⁸

In the absence of general rules applicable to each and every international organization, whatever definition is endorsed, there is always room for argument and disagreement. But while a clear-cut definition is a 'matter of taste', or more precisely is a matter of the purposes such a definition is being proposed for, particular characteristics embodied within the definition should be unambiguously explained and followed in a consistent way throughout the analysis.

Another writer has reliably maintained that "there is no 'law' of international organizations, at least no widely accepted and uniformly interpreted law of international organizations, but there are 'laws' of international organizations. The implication is that, since the law governing each organization is to be found in or flows from its constitution and

²⁰⁶ The reporters notes to the Section 103(2) of the Restatement, Third, Foreign Relations Law of the United States explains: "The views of the International Law Commission have sometimes been considered especially authoritative".

²⁰⁷ UNGA Res. 66/100, Responsibility of International Organizations, Official Records of the General Assembly, Sixty-sixth session Supp. No. 10 (A/66/100).

²⁰⁸ C.W. Jenks, *The Proper Law of International Organizations* (1962), at 6-7, cited in C.F. Amerasinghe, *Principles of the Institutional Law of International Organizations* (2005), at 15-16.

constitutions are individualized instruments, there can be no general law nor general principles of law applicable to all or several organizations."²⁰⁹ Therefore, the proposed definition will be used as a basis for a more precise and concrete analysis. The definition is not supposed to cover all variations, but merely to convey the understanding of a notion of an international organization in accordance with the widely supported scholarly views.

1.3.3 Criteria of Analysis

Next, it is proposed to focus on the following six criteria to distinguish these three identified categories: (1) membership/participation, (2) the secretariat, (3) international legal personality, (4) term of existence, (5) binding force of the relevant documents produced, and (6) existence of opportunities for States to modify their obligations. Each of these criteria will now be applied to the three categories of cooperation.

1.3.3.1 1st Criterion - Participation

The concept of an international conference has the least restrictive list of participants that might include non-governmental entities along with States and international organizations. But it is important to emphasize that since the focus of this analysis is cooperation of States, their participation is the crucial element in designating a gathering as an international conference in the international legal sense of the term. Thus, representatives of States must be present at the international conference, while representatives of international organizations and nongovernmental entities might also be welcome.

Participation in international treaties pursuant to the adopted definition is limited to States and international organizations. An international treaty cannot have a private entity as a party, though it can affect rights and obligations of such actors.²¹⁰ Membership of an international organization is even more restrictive. While both States and international organizations may become members of the organization, it should consist *primarily* of States. Although this 'primarily' element is not an exact number or percentage, it is well accepted that international

²⁰⁹ C.F. Amerasinghe, Principles of the Institutional Law of International Organizations (2005), at 16.

²¹⁰ The Rome Statute of the International Criminal Court is the classic example of the treaty applying only to States, at the same time providing rights for persons.

organizations are created by and thereby are comprised of States, while for the benefit of the organization's effective work other international organizations might become members.

1.3.3.2 2nd Criterion - Secretariat

The next criterion is the existence of a secretariat. Before proceeding with application of the criterion to the three categories, the notion of a 'secretariat' with a lower-case 's' should be elaborated. Article 2(c) of the articles on Responsibility of International Organizations introduced the term 'organ of an international organization', which was defined as "any person or entity which has that status in accordance with the rules of the organization."²¹¹ The Note to paragraph 221 of the Restatement explains that the term 'organization' is restrictive and includes such features as headquarters, staff and budget.²¹² German authors state that an international organization.²¹³ It has been observed that all contemporary international organizations include an administrative organ, or a secretariat, which plays a central role in management of the organization and its activities.²¹⁴

These characteristics convey similar ideas, namely the presence of a permanent administration within the structure of the entity. Headquarters, budget and staff are all necessary prerequisites for the actual existence of organs of the organization simply because they need to be located in a certain place, be funded and have necessary personnel to fulfill its responsibilities. "The contemporary international secretariats are continuous and permanent; they perform diverse general functions."²¹⁵ Authors also note that secretariats of some international organizations "have not only technical and administrative functions, but also certain political and executive responsibilities which must, of course, be carried out in an impartial and neutral spirit."²¹⁶ This modern understanding of a secretariat should be distinguished from conferences'

²¹¹ UNGA Res. 66/100, Responsibility of International Organizations, Official Records of the General Assembly, Sixty-sixth session Supp. No. 10 (A/66/100).

²¹² Restatement of the Law, Third, Foreign Relations Law of the United States (Revised), Vol. 1, (1987), at 135.

²¹³ See, R. L. Bindschedler, "International Organizations, General Aspects," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1289.

²¹⁴ Cf., P. Sands and P. Klein, Bowett's Law of International Institutions (2009), at 303.

 ²¹⁵ T. Meron, "International Secretariat", in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1377.
 ²¹⁶ Id.

secretariats of the beginning of the 20th century, which performed purely technical functions and were not international in character.²¹⁷

While the latter views would be the theoretically correct one, in practice international organizations and consequently their secretariats vary significantly, where one organization is aimed at a narrow topic, for example the Cocoa International Organization,²¹⁸ and thus its secretariat is fulfilling similarly limited functions, whereas the other, including the United Nations and the majority of its specialized agencies, were created to perform diverse functions, thereby requiring a secretariat with an extensive mandate. In other words, the breadth of secretariat's functions is not indicative of its presence or otherwise. There are functions that have to be performed, normally administrative and organizational, for every international meeting, whether during a session of an international organization, treaty review meeting or an international conference. Every multilateral meeting has to be organized, papers should be distributed, rooms be arranged, translations secured and schedules maintained.

The notion of a secretariat should be understood in terms of who is performing the functions, whatever these functions might be, though in most organizations secretariats are responsible for the day-to-day management of the organization. "Secretariats constitute the backbone of international organizations."²¹⁹ Most organizations have a single unified secretariat, which serves all organs, but some, for example the European Union, have a separate secretariat for each institution. Due to utter complexity of the European Union and institutions it is comprised of, and due to wide scope and diversity of functions performed by each institution, each one requires separate administrative support. For example, the European Council,²²⁰ which is charged with defining the priorities for the construction of Europe and indicating the direction to be taken by European policies, and the European Commission, which is empowered to propose legislation, enforce European law, set objectives and priorities for action, manage and implement European Union policies and the budget, and represent the Union outside Europe,²²¹

 $^{^{217}}$ Id.

²¹⁸ For more information *see*, C.C. Joyner, *International Law in the 21st Century: Rules for Global Governance* (2005), at 280.

²¹⁹ P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 304.

²²⁰ For more information *see*, P. de Schoutheete, "The European Council," in J. Peterson and M. Shackleton (eds.), *The Institutions of the European Union* (2012), at 56-61.

²²¹ For more information *see*, L. Hooghe and H. Kassim, "The Commission's Services," in J. Peterson and M. Shackleton (eds.), *The Institutions of the European Union* (2012), at 177-81.

obviously need separate secretariats to support the very different functions these institutions are performing.

While the scope of functions of an international organization's secretariat, as noted above, might vary from mere administrative functions to quasi-political ones,²²² the one uniting feature should be the makeup of the entity performing them. When the Universal Postal Union was created, its secretariat, the International Bureau, was placed under the oversight of the Swiss government.²²³ This approach, however, was abandoned with respect to organizations created later. Currently it is presumed that a secretariat of an international organization should be comprised of a highly qualified staff not influenced by the will of member States to ensure that they are performing their functions independently and in the name of the organization.²²⁴ It is widely believed that the efficient functioning of international organizations is to a significant extent dependent on the quality of their secretariats and in particular on their ability to be perceived as truly international, namely independent and impartial and not as serving interests of a single member or a group of members.²²⁵

Consequently, the secretariat of an international organization is a separate permanent organ within the structure of the organization, staffed by highly qualified employees discharging their functions independently of the will of member States and acting in the best interest and on behalf of the international organization. Despite the variations in the functions of secretariats of different organizations, there are several crucial characteristics that allow identifying the entity serving as an organization's secretariat. These are the following: (1) a separate organ within the structure of the organization; (2) working on a permanent basis and financed from the

²²² For example, the UN Charter confers on the Secretary General the right of initiative vis-à-vis policy-making bodies. Article 99 of the Charter states: "The Secretary General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security." ²²³ See, L. Weber, "Universal Postal Union," in R. Bernhardt (ed.), *Encyclopedia of Public International Law:*

International Organizations in General, Universal International Organizations, and Cooperation (2014), at 384; Treaty Concerning the Formation of a General Postal Union, Concluded Between Germany, Austria-Hungary, Belgium, Denmark, Egypt, Spain, The United States of America, France, Great Britain, Greece, Italy, Luxemburg, Norway, The Netherlands, Portugal, Roumania, Russia, Servia, Sweden, Switzerland, and Turkey, October 9, 1874, Treaties and Other International Agreements of the United States of America 1776-1949, available at http://avalon.law.yale.edu/19th_century/usmu010.asp.

 ²²⁴ See, C.F. Amerasinghe, *Principles of the Institutional Law of International Organizations* (2005), at 158.
 ²²⁵ See, P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 308.

organization's budget; (3) and acting independently from the will of member States and pursuing in its work goals of the international organization, thus possessing an international character.²²⁶

With regard to the meetings that might be commenced in connection to a treaty, be it a treaty review meeting or an *ad hoc* meeting considering issues pertaining to the treaty implementation, a separate entity ensuring proper organization and administration of the meeting might also be present, but none of the above enumerated criteria of the international organization's secretariat is met. While it might be a separate organ within an organization's structure, it should be kept in mind that an organization and a treaty are not the same, and thus utilization of an organization's secretariat for a treaty-concerned meeting does not make the organization's secretariat the 'treaty's' secretariat. The next two criteria should be analyzed along the same lines: the administrative organ is either not working permanently, or even if it is – if the organization's secretariat is used – it is not working permanently 'for the treaty', it is working permanently for the hosting organization; and it is not working independently from the will of the States gathered, quite to the contrary, it is performing functions that the meeting deems necessary to be performed.

The same is true for an international conference. Oftentimes a conference is utilizing administrative capacities of a hosting international organization, but that does not amount to transformation of the organization's secretariat into the conference's secretariat. While all characteristics of the organ performing functions of a conference's secretariat might be present, one should keep track of the actual 'owner' of the analyzed conference's secretariat. Other conferences, by contrast, might designate a hosting State or a committee comprised of States' representatives as those responsible for secretarial functions. In this rather straightforward case, neither of the three enumerated secretariat's characteristics is met, thus giving rise to the conclusion that the conference's administrative organ does not amount to an international organization's secretariat as it has been described above. Again, it should be kept in mind that functions *per se* do not add anything to the designation of the administrative organ as a secretariat, while only the structural characteristics identified above are relevant for the analysis.

²²⁶ International character of work of an international organization's secretariat may also be defined as an autonomy in its work. Autonomy in this context should be understood as "the range of potential independent action available to agents after the principal has selected the range of maneuver available to agents after the principal has selected screening, monitoring, and sanctioning mechanisms intended to constrain their behavior." D.G. Hawkins et al., "Delegation under Anarchy: States, International Organizations, and Principal-Agent Theory," in D.G. Hawkins et al. (eds.), *Delegation and Agency in International Organizations* (2206), at 8.

Ways and means of achieving the goals may vary among the participants, thus an effective administration is necessary.²²⁷ An international conference, a treaty and an international organization alike all need an administrative capacity to pursue their respective goals in international cooperation. In this sense, all three need a 'secretariat', but only one has a secretariat in the international legal sense. International organizations possess a separate organ within their structure working on a permanent basis toward fulfillment of the organizations' goals independent from the will of member States. International treaties and international conferences have the secretarial functions performed either by a secretariat of a hosting organization or by an *ad hoc* entity established solely for the duration of the meeting.

1.3.3.3 3rd Criterion – Legal Personality

The third criterion is the existence of international legal personality. International legal personality can exclusively be found in international organizations, and it is now generally considered to be their most important constitutive element that distinguishes them from other entities, which are nothing more than organs common to two or more States.²²⁸ At the same time, the concept of legal personality is subject to significant controversy in legal writings. Within this characteristic some distinguish between a legal standing – that is an ability to be a subject of international law, and a legal capacity – an ability to enter in international relations, for example to conclude treaties, establish diplomatic relations, bear responsibility for wrongful acts and suchlike.²²⁹ Both elements depend on the will of States creating an international organization, but legal standing is a necessary prerequisite for legal capacity.²³⁰ Alternatively, it is suggested that any international organization is created as a subject of international law, that is with legal standing, while legal capacity is determined based on the powers and the functions of the organization.²³¹ Other authors do not distinguish two elements of legal personality, but take the view that presence of legal personality for an international organization is a question of positive

²²⁷ See, W.G. Vitzthum et al., Völkerrecht [International Law] (2007), at 407.

²²⁸ See, P. Sands and P. Klein, Bowett's Law of International Institutions (2009), at 473.

²²⁹ See, W.G. Vitzthum et al., Völkerrecht [International Law] (2007), at 393; Международное право

[[]*International Law*] / Черниченко С.В. – М.: Волтерс Клувер, 2005. С. 452. ²³⁰ *Id*.

²³¹ Право международных организаций [*Law of International Organizations*], под ред. И.П. Блищенко, А.Х. Абашидзе. М.: Российский Университет Дружбы Народов, 2013. С. 29.

law and depends upon its constituent treaty. States are therefore free to accord legal personality to an organization, or to withhold it.²³²

If the view is taken that international organizations are able to participate in international conferences and can become parties to a treaty, then the conclusion should be made that any international organization *ipso facto* is created as a subject of international law; otherwise no such participation would have been possible. But it is also undisputable that the powers of an international organization depend on the will of the creating States. While the United Nations has been created as an organization with a broad authority, the World Trade Organization has a rather limited mandate. The theoretical dispute about the scope, nature and source of international organization's legal capacity is a complicated one and should be left to specialists in this area.

Further, there are two basic approaches to the problem of international legal personality. "First, there are those who identify certain rights, duties and powers expressly conferred upon the organization, and derive from these the international personality of the organization."²³³ This approach suggests deducing international legal personality from a general treaty-making power or from the presence of organization's staff privileges and immunities. At the same time, both the treaty-making power and appropriate privileges and immunities are deduced from the very fact of international personality. "In other words, the reasoning is circular. To avoid such a consequence, it should be clearly understood that legal personality has no predetermined content in international law."²³⁴ While international legal personality is a necessary attribute of any international organization, attribution of this quality to an organization does not authorize it to perform any specific acts.

Thus, it is necessary to identify the features of an international entity as such that allow attributing international personality and qualifying it as an international organization, irrespective of the concrete functions that this entity is capable of performing. International legal personality is a prerequisite for the status of a subject of international law. Being a subject of international law means the capacity to possess international legal rights and duties: the capacity to possess, not the possession. Consequently, to identify presence of legal personality one needs

²³² R.L. Bindschedler, "International Organizations, General Aspects," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1299.

²³³ C.F. Amerasinghe, *Principles of the Institutional Law of International Organizations* (2005), at 79.

²³⁴ P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 476.

to analyze not the specific powers and rights of the entity, but to examine general characteristics conferred upon it by the founding States, since "the international legal personality of international organizations is based upon the will of the founders."²³⁵

This approach makes international legal personality of an international organization dependent on fulfillment of certain criteria. Sir Brownlie suggested that the following criteria should be present to determine existence of international personality: (1) a permanent association of States, with lawful objectives, equipped with organs; (2) a distinction, in terms of legal powers and purposes, between the organization and its member States; and (3) the existence of legal powers exercisable on the international plane and not solely within the national systems of one or more States.²³⁶

This approach presents itself as a more practical one in terms of providing a realistic opportunity to apply the identified criteria to any particular international organization in question to determine whether the international personality is in place. This is so because currently there are dozens of international organizations created for completely different purposes, ranging from supervision over exploitation of a particular natural resource²³⁷ to a broad mandate of the United Nations. Having particular criteria in place, thus, as opposed to rather vaguely understood "rights, duties and powers expressly conferred upon the organization," which in the end may not be expressly enumerated in any underlying document of the international organization, is analytically a more helpful tool applicable to the whole diversity of currently existing international organizations. Moreover, this approach allows avoiding circular reasoning discussed above and shifts the emphasis onto general characteristics that can be identified irrespective of the precise catalogue of rights and obligations the international organization in fact enjoys.

One might point out that the third characteristic advocated by Sir Brownlie speaks precisely about "legal powers exercisable on the international plane," while it has been advised

²³⁵ *Id.* at 479.

²³⁶ See, I. Brownlie, Principles of Public International Law (1998), at 679-81.

²³⁷ E.g., the International Seabed Authority established under the 1982 United Nations Convention on the Law of the Sea and the 1994 relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea. The Authority is the organization through which States Parties to the Convention shall, in accordance with the regime for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) established in Part XI and the Agreement, organize and control activities in the Area, particularly with a view to administering the resources of the Area. For more information see, International Seabed Authority official website http://www.isa.org.jm.

that specific rights and obligations should not be indicative of a legal personality attribution. A closer reading of the last characteristic reveals that it speaks not about particular powers that should be present, but rather intends to emphasize an international character of personality by juxtaposing powers exercisable on the international plane and on the national plane. Moreover, the fact that an attribution of legal personality does not *ipso facto* confer any specific rights and obligations does not mean that there is an international organization not enjoying any – simply because it would have been a surprisingly useless organization, which States are not likely to ever create. This only entails that there is no such list of legal powers of an international organization that are automatically bestowed on the organization by way of its creation as a subject of international law.

To add authority to the advocated methodology in attributing international legal personality to an international organization, the only International Court of Justice case dealing specifically with this matter should be briefly referred to. Authors point out that in the *Reparations Case* the International Court of Justice identified legal personality of the United Nations based on examination of (1) several factors surrounding the establishment of the United Nations, (2) provisions of the United Nations Charter and (3) the subsequent practice of the international community in relation to the United Nations.²³⁸ Despite the multiplicity of views on the scope and applicability of the conclusions arrived at in the *Reparations Case*, it seems that the Court did in fact identify two criteria indispensable for an international organization possessing legal personality.

First, it is an association of States or international organizations or both with lawful objectives and with one or more organs, which are not subject to the authority of any other organized communities. Second, a distinction exists between the organization and its members in respect of legal rights, duties, powers and liabilities on the international plane as contrasted with the national and transnational plane, thus making clear that the organization was intended to have such rights, duties, powers and liabilities.²³⁹ In essence, these criteria are compatible and reflect Sir Brownlie's approach discussed above, although they are not identical. In the absence of the precise wording in the International Court of Justice's ruling, the following understanding of the necessary criteria for identification of international organization's legal personality is proposed.

 ²³⁸ See, C.F. Amerasinghe, Principles of the Institutional Law of International Organizations (2005), at 81.
 ²³⁹ Id. at 82-83.

For the purposes of this book the international legal personality should be understood as conveying the status of a subject of international law onto an international organization. To identify the presence of legal personality one needs to make sure that specific criteria are present. Combining the earlier cited academic approach of Sir Brownlie and the scholarly analysis of the criteria derived from the International Court of Justice decision, it is proposed that four criteria should be present to determine the existence of the international legal personality. These are the following: (1) it is an association of States or international organizations or both with lawful objectives; (2) with one or more organs, which are not subject to the authority of any other organized communities; (3) legal powers and purposes are distinct between the organization and its member States; and (4) it possesses legal powers exercisable on the international plane and not solely within the national systems of one or more States.

It is logical to assert that the proposed characteristics, especially the third and the fourth ones are somewhat broadly worded, and thus guidance is necessary in their application. Here the international organization's scope of powers would prove helpful. As it has been argued above, no 'law of international organizations' exists and the international legal personality as a status does not convey possession of any legal powers; there is only a number of 'laws of international organizations' and that makes impossible drawing any specific, concrete and irrefutable conclusions about the scope of powers characteristic for every international organization imaginable. But it has been persuasively argued that certain presumptions derived from a statistically correct analysis of numerous international organizations' constituent documents about certain organizations' capacities exist.

International organizations exercise exclusive jurisdiction over their organs, have the capacity generally to conclude treaties and international agreements, exercise a certain jurisdiction over matters arising on and within their premises and concerned with the functions of the organizations and the official duties of staff, have an active and passive *ius legationis*, have power to convoke and participate in international conferences, may become members of other international organizations, may be the subject of active and passive responsibility, may bring claims, whether in respect of injuries to their staff or otherwise, and have claims brought against them and may engage in the settlement of their disputes by peaceful means.²⁴⁰

²⁴⁰ C.F. Amerasinghe, Principles of the Institutional Law of International Organizations (2005), at 101.

In line with the earlier conclusion about the absence of universal principles of the 'law of international organizations', the proposed list should not be viewed as either exhaustive or as containing items that must necessarily be attributed to every reviewed organization. The value of the proposed list lies in providing exemplary capacities of an international organization that signal presence of legal powers and purposes distinct between the organization and its member States, and so signal possession of legal powers exercisable on the international plane.

Another indicator, as established by the International Court of Justice precedent, that can be used to identify presence of international legal personality is the following language of the organization's constituent document: "The Organization shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes."²⁴¹ Although this formula *per se* does not convey the status of a subject of international law, such wording of Article 104 of the United Nations Charter, along with other provisions of the Charter, prompted the International Court of Justice in the *Reparations Case* to conclude, among others, that the Organization was an international rights and duties, and that it has capacity to maintain its rights by bringing international claims."²⁴² Hence, identification of a similar provision or provisions to the same effect in constituent documents of the entity under consideration serves as a firm indicator in favor of a conclusion of an existing international legal personality.²⁴³

By way of conclusion, every international organization is created as a subject of international law. This determination can be made by application of the four identified characteristics using evidence either based on the text of the constituent documents, or based on the practice when documents are silent or ambiguous regarding this matter. Alternatively, legal personality may be identified relying on the precedent of International Court of Justice in case the cited above language can be found in the constituent documents of the organization.

²⁴¹ Art. 104 of the Charter of the United Nations.

²⁴² Reparation for Injuries Suffered in the Service of the United Nations, I.C.J. Rep (1949), at 178.

²⁴³ Strictly speaking, the value of precedent in international law is quite different from that in the legal tradition of Anglo-Saxon law. Nevertheless, decisions of the Permanent Court of Justice and the International Court of Justice have been consistently considered authoritative in the international legal doctrine. The US Supreme Court has on some occasions denied the precedent value of the International Court of Justice decisions, while acknowledging it on other occasions. For an overview of the practice of US higher courts in this regard *see*, C.A. Bradley and J.L. Goldsmith, *Foreign Relations Law: Cases and Materials* (2011), at 605-712.

Neither a conference, nor a treaty is a subject of international law and thus neither has legal personality or any of the capacities enumerated above. It is well established in the theory of international law that subjects of international law are those possessing international rights and obligations, and whose actions are directly regulated by the norms of international law.²⁴⁴ Traditionally, only sovereign States and international organizations are considered subjects of international law; the status of a subject of international law of individuals, companies, insurgents and national liberation movements, ethnic minorities and indigenous peoples is subject to argument and there is no unanimity in this regard.²⁴⁵ Neither international treaties, nor conferences are regarded in the theory of international law, therefore excluding them from the list of entities capable of possessing international legal personality.

It should be noted that national legal personality is a separate issue. International organizations usually possess national legal personality for obvious reasons: to be able to rent or buy property, hire employees, maintain bank accounts and so on. The vast majority of constituent documents proclaim the power of international organizations to act as autonomous legal persons in national legal orders.²⁴⁶ An entity, which cannot be characterized as an international organization from an international legal perspective, may also be granted a status of a legal person depending on the host State's national legislation.²⁴⁷ The scope of national legal personality, and the respective rights and obligations are regulated by municipal laws of the hosting State and do not affect the international legal nature of the entity in question.

1.3.3.4 4th Criterion - Term

The next criterion concerns the term of existence. An international conference is always temporary, and that is duly reflected in the definition. A conference may suspend and later

²⁴⁴ See, W.G. Vitzthum et al., Völkerrecht [International Law] (2007), at 212.

²⁴⁵ Cf., P. Malanczuk, Akehurst's Modern Introduction to International Law (1997), at 91-108.

²⁴⁶ For more information *see*, P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 480-515.
²⁴⁷ E.g., in accordance with 2005 Arrangement between Canada, the Republic of France, the Russian Federation and the United States of America Regarding the Headquarters of the International COSPAS-SARSAT Programme, the Programme is provided with the legal capacities of a body corporate under Canadian domestic law; in accordance with 2005 Understanding between the COSPAS-SARSAT Programme and the Government Du Québec Concerning Exemptions, Fiscal Advantages and Courtesies Accorded to the Programme, Representatives of Member States and Officials of the Secretariat, the Government Du Québec recognizes the Programme as an international governmental organization.

resume its work, it may last for months or even years, but there is always a foreseeable moment when the conference is over.²⁴⁸

Treaties vary significantly in their duration clauses. Generally, "it is normal to provide for the duration of the treaty and the procedure by which a party may withdraw from it, or for the conditions under which it can be terminated, unless the treaty is such that the possibility is not envisaged."²⁴⁹ Duration, withdrawal and termination clauses are most common for bilateral treaties, while multilateral treaties also often include such provisions. In case of a multilateral treaty the decision not to include respective provisions is often guided by the desire of drafters to underline the treaty's envisaged permanent existence.²⁵⁰

Unlike conferences and treaties, organizations are normally created for an indefinite period of time, though exceptions do exist.²⁵¹ "While international organizations are generally created for longer periods of time, indeed usually even without any definite time period in mind, not all of them manage to survive indefinitely. Some simply disappear without being succeeded to in any way... In other cases, organizations are remodeled to cope with new or unexpected demands, or are succeeded by new entities providing similar functions to their predecessors."²⁵²

Overall, international conferences are always temporary, international treaties might explicitly provide for a duration term or are otherwise presumed to be established for an indefinite period, and international organizations are presumed to be created for an indefinite period unless explicitly provided otherwise.

²⁴⁸ For example, the Third United Nations Conference on the Law of the Sea lasted for 12 years. However, from the very beginning it had a specific goal defined in the UN General Assembly resolution 2750 C (XXV) in relevant part stating the following: "Decides to convene in 1973, [...] a conference on the law of the sea which would deal with the establishment of an equitable international regime – including an international machinery – for the area and the resources of the sea-bed and the ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction, a precise definition of the area, and a broad range of related issues including those concerning the regimes of the high sea (including the question of the continental shelf, the territorial sea (including the question of its breadth and the question of international straits) and contiguous zone, fishing and conservation of the living resources of the high seas (including the question of the preferential rights of coastal States), the preservation of the marine environment (including, *inter alia*, the prevention of pollution) and scientific research."

²⁴⁹ A. Aust, Modern Treaty Law and Practice (2013), at 379.

²⁵⁰ For example, while Article XVI of the Outer Space Treaty provides for an opportunity to withdraw from the treaty subject to a written notification and a one-year grace period, it is silent on the matters of duration and termination.

²⁵¹ For example, the Treaty Establishing the European Coal and Steel Community entered into force in 1952 with validity period of 50 years. Upon its expiration the Treaty was renewed. Pursuant to the Treaty of Nice (2001) all assets of the institutions created by the Treaty were transferred to European Community effectively terminating the international organization. *See*, Alter, J. Karen and D. Steinberg, "The theory and reality of the European Coal and Steel Community," in Meunier, Sophie, McNamara, Kathleen (Eds.), *Making History: European Integration and Institutional Change at Fifty*, R 8 (2007), at 89-104.

²⁵² J. Klabbers, An Introduction to International Institutional Law (2002), at 320.

1.3.3.5 5th Criterion – Legal Force of Documents

The fifth criterion is the binding force of the relevant documents produced. The result of an international conference in principle is a non-binding document. Only if the produced document receives formal support of participating States by way of the required number of signatures or ratifications does such document move to the category of an international treaty. This is so because an international treaty is the proper way to take on responsibilities and assume rights that are enforced in accordance with international legal norms. A legally non-binding document does not fall within the treaty category as it has been defined earlier and does not necessarily fall within any category. At the same time, a legally non-binding document constitutes the only type of documents that can always be produced by an international conference.

An international treaty is, as said, always legally binding and creates legal rights and obligations for the parties. An international organization can produce documents legally binding its members along with non-binding documents. In legal literature it is often stated that an international organization's decisions dealing with procedural issues and budget are legally binding on the members, while other documents are not. This is an overly broad conclusion, because, for example, resolutions of the United Nations Security Council are legally binding and do not deal with procedural or financial matters.

From a theoretical point of view, a better approach is to distinguish between the organization's decisions dealing with internal issues and those producing effects outside the organization's legal order. In the discussion of the legal personality criterion it has been noted that normally one of the capacities of an international organization as an entity possessing legal personality is the exercise of jurisdiction over matters arising within its premises and concerned with the functions of the organization. Consequently, international organizations are empowered to adopt legally binding decisions with respect to their internal matters, unless a constituent treaty expressly states otherwise.²⁵³

On the other hand, it is largely agreed "that the power to adopt normative acts binding on members in the "external sphere" must be expressly stated in the organization's instruments and

²⁵³ See, e.g. ICJ Advisory Opinion on the Effect of Awards of Compensation made by the UNAT (1954), at 56.

may not be implied."²⁵⁴ So while it should be agreed that international organizations are empowered to adopt both legally binding and non-binding documents, the exact scope of the organizations' decisions that bind their members should be determined on a case-by-case basis, since it depends on their respective constitutive documents. Of course, international organizations almost by definition are established on the basis of such constitutive documents qualifying as treaties – treaties, which do not only lay down substantive rights and obligations for the State parties, but also create the organization itself and determine its role, functions and powers, including the power to enunciate binding or non-binding documents. Thus, the constitutive treaty itself is always binding, but other documents produced by the organization may or may not possess binding force depending on the treaty's respective provisions.

1.3.3.6 6th Criterion – Modification of Obligations

The final criterion is the opportunity for States to modify their obligations; that is whether participating States have the right to modify or reject imposed obligations. With regard to documents adopted during an international conference the answer is straightforward owing to the lack of a legally binding nature of such documents (unless, of course, treaties are concerned). The absence of a legal obligation in the first place gives a State's disagreement with the adopted document no more than a political or a moral value. While a clear statement of the State's representative that his country does not agree with the proposed text, or maybe the measure in general, might serve long- or short-term political goals, from a strictly legal perspective it does not add or detract anything from the document in question.

A State's dissent with an international treaty, however, can affect its legal obligations. Article 19 of the Vienna Convention on the Law of Treaties pronounces: "A State may, when signing, ratifying, accepting, approving or acceding to a treaty, formulate a reservation unless: (a) The reservation is prohibited by the treaty; (b) The treaty provides that only specified reservations, which do not include the reservation in question, may be made; or (c) In cases not falling under sub-paragraphs (a) and (b), the reservation is incompatible with the object and purpose of the treaty."²⁵⁵ It is important to note that reservations may lead to different sets of legal rights and obligations between different groups of States in cases regulated by Articles 20

²⁵⁴ P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 285.

²⁵⁵ Art. 19 of the Vienna Convention on the Law of Treaties, done May 23, 1969, entered into force January 27, 1980, 1155 U.N.T.S. 331.

and 21 of the Vienna Convention. But that does not alter the legally binding force of the treaty, while some articles may become enforceable against one State and not the other.

The second procedure to modify obligations imposed by the treaty is amendment of the treaty. Overall, this matter of the law of treaties is fairly settled in the theory of international law and for the purposes of the present analysis requires a mere reiteration of the general applicable rules. The Vienna Convention on the Law of Treaties lays down the basic rules of the amendment procedure. "Article 39 states the general rule regarding the amendment of treaties, whether bilateral or multilateral: a treaty may be amended by 'agreement' between parties. The use of this word recognizes that it is perfectly possible to amend a treaty by an agreement that does not itself constitute a treaty or, possibly, by an oral agreement, the legal force of which is preserved by Article 3. A treaty can also be effectively amended by subsequent agreement between the parties regarding the interpretation or application of the treaty."²⁵⁶

Articles 40 and 41 of the Vienna Convention set forth a procedure for amendment of multilateral treaties that applies unless the treaty in question stipulates a different procedure. In the case of a multilateral treaty with a large number of parties, it becomes less likely that an amendment would be agreed upon and ratified by all original parties. This "has led to an increasing practice of bringing amending agreements into force as between those States willing to accept the amendment, while at the same time leaving the existing treaty in force with respect to the other parties to the earlier treaty. The consequence of this last consideration is [...] that an amending treaty may well created two categories of States each bound by differing obligations."²⁵⁷

In sum, States have two chances to amend their obligations pursuant to a treaty: the first one upon the initial acceptance of the treaty by unilateral notification of such changes, and afterwards any time throughout the treaty's duration, but this time exclusively by way of agreement with other parties. Both procedures – reservations and amendments – despite the former being a unilateral act and the latter a collective one, might lead to creation of different sets of obligations between different groups of State-parties to the treaty in question. This problem is especially acute, and thus should be duly considered in the following analysis, for the

²⁵⁶ A. Aust, *Modern Treaty Law and Practice* (2013), at 233.

²⁵⁷ I.M. Sinclair, *The Vienna Convention on the Law of Treaties* (1984), at 106.

multilateral treaties with numerous parties, the Outer Space Treaty being the most prominent example with over a hundred State-parties.

As it has been established earlier, international organizations can adopt both legally binding and non-binding documents. In case of a legally non-binding document, an analogy to that of an international conference can be made: in the absence of a legal obligation, there is no way to modify what is non-existent, but a moral and political value can be attached to the State's protest. When it comes to legally binding decisions no standard procedure akin to making amendments to a treaty can be found in general international law; such procedures are a matter to be decided on a case-by-case basis in the respective organization's constitutive documents. That is a logical outcome given the fact that there is no generic 'law of international organizations'. On the one hand, it is often suggested that once an international organization is created it becomes a separate entity with its own will distinguishable from the will of its members.²⁵⁸ Thereby, when a legally binding decision is adopted, States are bound by way of their membership to abide by these rules no matter the individual view of a State on the matter. On the other hand, States are free to draft structure, procedure, voting rules, scope of powers of a new organization as they see fit. Thus, States are free to create a 'law of *this* organization', which can consequently provide for a mechanism of obligations' modification or refrain from doing so.

States are not restricted by an obligation to include a particular set of provisions in the organization's constituent treaty. Depending on the goals of an organization, its membership, structure or any other considerations that States deem relevant, the organization might be endowed with certain legal powers and capacities and be deprived of the others; it might have a complex structure of organs or be functioning using merely a plenary organ and a secretariat; it might be empowered to adopt binding decisions on all questions under consideration or deprived of the right to adopt any binding documents. In the same vein, constituent documents might

²⁵⁸ See, G. Myrdal, *Realities and Illusions in Regard to Intergovernmental Organization*, in Hobhouse Memorial Lecture, 3-28 (1955), at 4-5, cited in C. Archer, *International Organizations* (1992), at 135-36, where the author agrees that the expressed view is the one widely supported, but argues that such view is erroneous ("The basic fictitious notion about intergovernmental organizations, as conveyed by their constitutions, is that they are something more than their component parts: something above the national states… In the typical case international organizations are nothing else than instruments for the policies of individual governments, means for the diplomacy of a number of disparate and sovereign national states. When an intergovernmental organization is set up, this implies nothing more than that between the states a limited agreement has been reached upon an institutional form for multilateral conduct of state activity in a certain field. The organization becomes important for the pursuance of national policies precisely to the extent that such a multilateral coordination is the real and continuous aim of national governments.").

provide for a States' right to modify the imposed obligations or opt out altogether from the adopted documents, might withhold such a right or limit it to specific types of obligations.²⁵⁹

It should be noted that the constituent treaty of an international organization, being a classic international treaty, is subject to provisions of the Vienna Convention on the Law of Treaties, meaning that it might be changed using the procedures of reservations and amendments. The provisions regarding the amendment procedure of constituent documents of organizations are fairly common, as will be shown in the course of the analysis. The provisions allowing for reservations to constituent treaties of organizations, however, are much less common and will be encountered only once in the course of the book. Generally, the provisions allowing reservations to a constituent treaty of an organization are quite rare in international practice, with the Chemical Weapons Convention being one of the few well-known exceptions.²⁶⁰

The Vienna Convention on the Law of Treaties in Article 20 stipulates: "When a treaty is a constituent document of an international organization and unless it otherwise provides, a reservation requires the acceptance of the competent organ of that organizations." The main difficulty with this provision is identification of the 'competent organ', since few constituent documents spell out which organ is deemed to be competent to deal with reservations. Moreover, it is not entirely clear whether reservations are compatible with international organizations' constituent treaties: reservations to provisions establishing functions, organs, voting rights and many other provisions might well be deemed incompatible with the object and purpose of the treaty. The matter of reservations to international organizations' constituent treaties is somewhat unsettled and is being shaped mostly by practice.²⁶¹

1.3.4 Purposes of Different Categories of Cooperation

The final most general distinction between the three categories that should be drawn

concerns the purposes. States have a choice between an international conference, a treaty or an

²⁵⁹ E.g., the World Health Assembly may adopt regulations on matters such as sanitary and quarantine procedures, nomenclatures for diseases and pharmaceutical standards, etc. On adoption these become binding on all members unless they opt out by communicating to the organization their rejection or reservation. Art. 22 of the WHO Constitution.

²⁶⁰ Art. XXII of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, signed January 13, 1993; entered into force April 29, 1997. 1974 U.N.T.S. 45; 32 I.L.M. 800 (1993).

²⁶¹ See, J. Klabbers, An Introduction to International Institutional Law (2002), at 84-88.

organization, and there is a reason why they choose one over the other in different circumstances. Although each case is special and should be treated as such, the doctrine of international relations has identified in most broad terms the reasons behind calling for a conference, developing a treaty or creating an organization.

An international conference, being the least institutionalized and the least formalized category of cooperation, presupposes a greater variability of the goals States are trying to achieve as a result of the conference. One author explained: "If one wishes to make a broad division one can say that intergovernmental conferences are deliberative, legislative, or informational, and sometimes two or three of these at the same time:

- a deliberative conference concentrates on general discussions and exchanges of points of view on certain topics;

- a legislative conference endeavors to make recommendations to governments or makes decisions which are binding upon governments, or may even result in treaties;

- an informal conference has as its main purpose the international exchange of information of specific questions."²⁶²

This quoted view should be read in context : in the cited book the author focuses on conference *diplomacy*, not the analysis of a conference as a mechanism of cooperation. Conference diplomacy is analyzed as an internal mechanism of multilateral diplomacy, which can take place within a classical conference, within the United Nations General Assembly session or an annual meeting of the United Nations specialized agency. If analyzed from this perspective, any gathering of States, be it a part of international organization's work, an *ad hoc* conference or a treaty negotiation is considered a conference. In the present work, however, strict limits have been established by way of defining each category. From the previous analysis it is clear that a conference cannot produce documents or make decisions that are binding upon governments (unless treaties are concerned, which are of course addressed here as a separate category).

The earlier cited scholarly opinion suggests that there are two types of conferences: deliberative and informal. For an informal conference a desirable outcome might be described as exchange of views, establishment of closer relations between States and their representatives, understanding of respective States views on matters under consideration and the like. A

²⁶² J. Kaufmann, Conference Diplomacy: An Introductory Analysis (1988), 6-7.

deliberative conference should be considered successful when States are able to exchange information and relevant scientific and technical data, understand mutual problems and agree to work toward their solution, and more generally when a conference is able to promote intergovernmental cooperation on various levels.²⁶³ Hence, neither type can be described in definitive terms as having a precise purpose and corresponding explicit result, and therefore such a distinction should be characterized as rather artificial and difficult to uphold in practice.

International conferences constitute the least formalized category of cooperation; each conference is unique in its background, participation and proclaimed purposes. Therefore, no precise scale to measure a conference's success can and should be proposed, and each conference should be analyzed and evaluated on a case-by-case basis. At the same time, a successful conference is generally the one that triggers, incentivizes further dialogue and cooperation, and not the one producing first-class concluding acts and documents. In other words, material results of the conference are of less importance when evaluating the conference's success. The adoption of concluding documents as a result of a conference is not by itself evidence of its success or otherwise. Any document adopted as a result of a conference may either remain a concluding document without more, or it may become a basis for further cooperative activities. If and when provisions of the concluding document are transformed into a cooperative agenda of conference's participants and they are being implemented through their concerted activities, the concluding document transforms into evidence of a conference's success.

An international treaty by way of definition always has a goal of establishing legally enforceable rights and obligations of the parties. As one of the distinguished international law scholars Kelsen stated, a treaty is an agreement normally entered into by two or more states under general international law. "An agreement is an act of coming into accord, or the state of being in accord – accord of opinion or will. A treaty is a manifested accord of will of two or more states."²⁶⁴ Thus, a treaty is only possible when there is an accord of will of parties to the treaty.

It has been proposed that an international treaty is to be defined as a proclamation of at least two subjects of international law aimed at "justification, amendment or cease of

²⁶³ Id.

²⁶⁴ H. Kelsen, *Principles of International Law* (1952), at 317.

international relations.²⁶⁵ This view corresponds to the one expressed in the beginning of the twentieth century that only such treaties are a source of international law that "stipulate new rules for future international conduct or confirm, define, or abolish existing customary or conventional rules.²⁶⁶ A treaty is said to require an intention of the parties to create legal rights and obligations or to establish relations governed by international law.²⁶⁷ Simultaneously, the agreement is presumed to be non-binding where the substance of the agreement is no more than a description of policy, purpose or intent, and when the text of the agreement lacks precision.²⁶⁸

A reasonable conclusion can be drawn that a treaty has a purpose of formalizing the matching will of participating States to justify, amend or cancel international relations by way of creating specified legal rights and obligations.

Now purposes of an international organization as a way of cooperation shall be explored. Former British Foreign Secretary Douglas Hurt stated:

Nation states are ... incompetent. None of them, not even the United States as the single remaining super-power, can adequately provide for the needs that its citizens now articulate. The extent of that incompetence has become sharply clearer during this century. The inadequacies of national governments to provide security, prosperity or a decent environment have brought into being a huge array of international rules, conferences and institutions; the only answer to the puzzle of the immortal but incompetent nation state is effective cooperation between those states for all the purposes that lie beyond the reach of any one of them.²⁶⁹

It is thus plausible to suggest that States unite in international organizations pursuing a goal that would be achieved faster, more effectively or efficiently through collaboration with other States.²⁷⁰ "International organizations, in the opinion of those who have studied the matter in the socialist countries, offer outstanding possibilities for co-operation between States in specific fields, and organizations such as the United Nations and certain regional organizations offer excellent means of settling inter-State disputes."²⁷¹

²⁶⁵ See, W.G. Vitzthum et al., Völkerrecht [International Law] (2007), at 75.

²⁶⁶ L. Oppenheim, International Law: a Treatise, Vol. 1 (1920-21), at 22.

²⁶⁷ See, The Twilight Existence of Nonbinding International Agreements, 71 Am. J. of Int'l L. (1977), at 296.

²⁶⁸ See, R. Bernhardt, "Treaties," in Encyclopedia of Public International Law, Vol. 3 (2000), at 928.

²⁶⁹ D. Hurd, *The Search for Peace* (1997), at 6, cited in V. Lowe, *International Law* (2007), at 1.

²⁷⁰ See, Шуршалов В.М. Международные правоотношения [International Legal Relations]. М., 1971. С. 69.

²⁷¹ G. Morozov, "The Socialist Conception of International Organization," in G. Abi-Saab (ed.), *The Concept of International Organization* (1981), 175.

Writers tend to divide organizations by their activities into general and specialized organizations and political and technical ones; others use a threefold division: military/security, political and economic organizations; another three-fold approach distinguishes between economic and technical arrangements, arrangements for defense purposes and arrangements providing frameworks for consideration of broad political issues.²⁷² Whatever classification is favored, it is safe to conclude that States utilize international organizations for achieving a variety of goals, which, first, require a certain level of continuous cooperation and coordination, and second, can be better or more efficiently solved through a mechanism of organization. More broadly, whatever the specific goals pursued by States in creating an international organization are, the primary objective "is to institutionalize their cooperation in different fields and, to that end, to establish structures for the coordination of their policies or for the execution of common projects and actions."²⁷³

Based on the preceding analysis, it is possible to draw general conclusions about the matters most effectively addressed using an international conference, or an international treaty or an international organization. An international conference, being the least formalized method of cooperation, should be deemed effective in addressing broad issues: either the issues encompassing a multitude of topics that have to be discussed among multiple subjects, or the issues that by virtue of their novelty do not yet have a precise list of topics for discussion and the general exchange of views is deemed most beneficial, or the issues that by virtue of their controversial nature should be discussed in a somewhat less formal manner, or any other issues discussion of which in a multilateral setting targeting a particular matter under consideration – as opposed to plenary organs or large forums with open-ended mandates – would be beneficial for promoting greater understanding and cooperation.

Treaties are most effective when there is a need to formalize respective rights and obligations of the parties, to mandate compliance with the outlined rights and obligations and to provide an opportunity to enforce stipulated provisions using appropriate procedures. International organizations are a way to institutionalize cooperative activities of States in achievement of the goals that are better or more easily achieved collectively. This not only means that international organizations are effective in addressing matters that are considered

²⁷² See, C. Archer, International Organizations (1992), 53.

²⁷³ P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 291.

'concerns of the whole international community', for example environmental issues; but also international organizations, being subjects of international law, are capable of formally addressing complex issues on a continuous basis, and are capable of taking steps toward achievement of the proclaimed goals on their own behalf, without the need for States to act individually.

1.3.5 Summary

Throughout this chapter the process of international space cooperation evolution has been reviewed and the overarching characteristics that define different ways in which States cooperate in the area have been addressed. A significant number of mechanisms of cooperation created during the space era require that a unified theoretical approach be proposed to analyze, classify and evaluate them in a comprehensive manner. In the subsequent chapters the mechanisms of international legal cooperation of States in outer space will be analyzed based on the proposed set of criteria and the general understanding of the purposes of cooperation using either the international conference, the treaty or the international organization category.

By way of conclusion, the following summary of the six criteria is proposed.

1. The membership/participation criterion refers to the subjects that enjoy the primary status within a particular mechanism of cooperation, as opposed to an ad hoc visitor's status.

a. International organization's membership: primarily States, but intergovernmental organizations might also become members.

b. International treaty's participation: primarily States, but intergovernmental organizations might also become participants.

c. International conference's participation: primarily States, but intergovernmental organizations and non-governmental entities might also become participants.

2. The secretariat criterion refers to the 'entity'/'entities' performing the administrative or any other required functions within a particular mechanism of cooperation.

a. An international organization's secretariat – usually considered as a true 'Secretariat' – possesses the following characteristics: (1) a separate organ within the structure of the organization; (2) working on a permanent basis and financed from the organization's budget; (3) and acting independently from the will of member States and pursuing in its work goals of the international organization, thus possessing an international character of work.

b. A secretariat of a meeting commenced with connection to an international treaty: (1) is an ad hoc entity not meeting the characteristics of the organization's secretariat; (2)

or is a secretariat of a hosting international organization working as a meeting's secretariat on a temporary basis.

c. International conference's secretariat: (1) is an ad hoc entity not meeting the characteristics of the organization's secretariat; (2) or is a secretariat of a hosting international organization working as a conference's secretariat on a temporary basis.

3. The international legal personality criterion refers to the extent a status of subject of international law is provided to a particular mechanism of cooperation and the main entities involved in it.

a. Usually, for existence of an international organization's legal personality four criteria should be fulfilled: (1) it is an association of States or international organizations or both with lawful objectives; (2) it has one or more organs, which are not subject to the authority of any other organized communities; (3) legal powers and purposes are distinct between the organization and its member States; and (4) it possesses legal powers exercisable on the international plane and not solely within the national systems of one or more States. This determination can be made either based on the text of the constituent documents or based on the practice when documents are silent or ambiguous regarding this matter.

b. An international treaty does not possess international legal personality. Only its participants – certainly the states involved, to some extent also IGOs – do have legal personality; which is reflected here mainly by formalized and attested powers to conclude a treaty.

c. An international conference does not posses international legal personality. Only its participants – certainly the states involved, to some extent also IGOs – do have legal personality; which is not reflected however by specific functional privileges and immunities as with IGOs but only by the standard diplomatic privileges and immunities for state representatives.

4. The term of existence criterion defines the period in which the particular mechanism of cooperation formally exists and, therefore, works.

a. An international organization is presumed to be created for an indefinite period unless explicitly provided otherwise.

b. An international treaty might explicitly provide for a duration term or is otherwise presumed to be established for an indefinite period.

c. An international conference is created for a limited term, which can be defined by way of setting the exact dates of the conference's work or by setting a goal the conference should achieve.

5. The criterion of binding force of the relevant documents produced.

a. An international organization might be capable of producing both legally binding and non-binding documents. Constituent documents of a particular international organization determine the power to enunciate binding or non-binding documents.

b. An international treaty by definition is always a legally binding document.

c. An international conference normally produces legally non-binding documents. Political or moral value of the produced document does not affect it legal nature.

6. The existence of opportunities for States to modify their obligations. This criterion determines whether a participating State has the right to modify or reject imposed obligations.

a. In an international organization the opportunity to modify imposed obligations depends on the international organization's constituent documents: they might provide for a right to modify or reject the imposed obligations, might withhold such a right, or limit it to specific types of obligations.

b. International treaty obligations can be modified using the mechanism of reservations as defined and regulated by Articles 19, 20 and 21 of the Vienna Convention on the Law of the Treaties.

c. An international conference does not normally produce legally binding documents (otherwise, those would be ruled under the regime applicable to treaties as per the above) and thereby does not impose legal obligations. No right to modify obligations is necessary.

Chapter 2. Outer Space Treaty and Three Elaborating Conventions

2.1 Overview

The late Judge Manfred Lachs noted: "The body of space law is impressive. Some of its provisions may be inadequate, some may constitute the mere scaffolding of the law of tomorrow, but many of them have matured at a very great speed, [and] have caught up with time. This new branch of international law is a telling testimony of the vitality of law in relations among states. Though the horizon may be clouded from time to time and doubts may be cast, it constitutes a reaffirmation of the claim that peaceful cooperation is possible only if all states submit to a universal rule of law in all dimensions."¹

It has been contended that the United Nations treaties constitute the first of two layers of legal norms applicable to outer space activities of States and international intergovernmental organizations. It has been further noted that the United Nations core of international space law must be completed by other space organizations and numerous agreements on international cooperation in this field.² In this chapter the core of international space law will be analyzed, particularly the Outer Space Treaty and three elaborating conventions. Although the Moon Agreement is in force, none of the major space-faring countries are currently inclined even to sign it, "and a well founded rumor has it that at least one ratifying state (Australia) has seriously contemplated withdrawal,"³ hence it will be excluded from the scope of the present part of the book.

Over the years distinguished scholars have extensively analyzed these treaties, providing an interested reader with a collection of outstanding academic legal analyses of their substantive provisions, their evolution in the light of new challenges in exploration and use of outer space and possible paths of their further development in the years to come. In this book the focus will be on their institutional analysis, concentrating on the foundations these treaties have laid for

² See, V. Kopal, *Comments and Remarks*, in Proceedings of the Workshop on Space Law "Disseminating and Developing International and National Space Law: The Latin America and Caribbean Perspective" (2005), at 25, cited in T.C. Brisibe, "A Normative System for Outer Space Activities in the Next Half Century," in *Proceedings of the International Institute of Space Law 2013* (2014), at 5.

¹ M. Lachs, "Foreword," in N. Jasentuliyana and R.S.K. Lee, Manual on Space Law, Vol. I (1979), at xii.

³ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 178-79.

cooperation in outer space. Although neither the Outer Space Treaty, nor the three elaborating conventions have *per se* created a 'machinery' for cooperation, they should be duly considered for two reasons: first, they are the basis of the whole international legal regime in outer space; and second, they are the mechanisms of cooperation themselves and, thus, even though no doubt exists about the category of cooperation they should be attributed to, an in-depth analysis based on the six proposed criteria is an essential part of a comprehensive research this book is aimed at.

Since the substantive provisions of the four analyzed treaties will not be scrutinized, as has been mentioned above, the analysis will follow from the review of the treaties' negotiation processes as reflected in *travaux préparatoires*, to the substance of the principle of cooperation as it has been established in the treaties, and will be concluded by the overview of the practice of the relevant provisions' application in modern international legal cooperation in outer space.

2.1.1 Drafting History

"Our peace is sealed by treaties – the Latin word for allies, *foederati*, comes straight from the word for treaties, *foedera*."⁴ Thereby, it is interesting to note that the two antagonistic superpowers of that period despite their Cold War rivalry, were not only able to promote and lead development of international regime of outer space, "but were actually able to arrive at a general understanding that outer space should remain outside of the arms race as much as possible and by contrast should remain free and open for (in particular) scientific exploration, and finally that international law was to play a crucial role in guaranteeing such an outcome."⁵

Other authors also pointed out the crucial role played by States other than the two major space powers in ascertaining the need for a secure outer space exploitation environment. "While most smaller countries exhibited little concern about the possible consequences of opening Antarctica to exploration and exploitation, their attitude has from the very beginning been quite different in relation to space. Concern for security, more than any other value, has dominated their actions and reactions in the international arena. While convincing evidence of the great benefits that space may yield is still from the perspectives of many participants is most immediate. In this omnipresent fear that outer space may be used by the contending powers as means for power enhancement, including possible obliteration of whole communities, we may

⁴ V. Lowe, International Law (2007), at 8.

⁵ F.G. von der Dunk, "International Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 35.

perhaps find the explanations for demands that outer space be "demilitarized" and used for "peaceful purposes only" and for the "benefit of all mankind"."⁶

In reality, of course, the process of space treaties negotiation was not particularly smooth and uncontroversial. Vigorous debates, which were mostly anticipated, were concluded by concessions on all ends of the negotiation table. The Soviet Union proposed in 1962 that there should be a treaty on space law. The United States at first agreed only to have a General Assembly resolution, what resulted in the United Nations General Assembly resolution 1962 (XVIII) of 1963 setting out legal principles governing States activities in exploration and use of outer space. "Negotiations towards a treaty went on desultorily for several years. As late as October 1965, the United States was still against a general treaty on space."⁷ Less than a year later, however, in September 1966 the United States considered that the need for such a treaty was "all the more urgent because of man's recent strides toward a space treaty development was prompted by the perceived practical needs of outer space exploration.

It was stated that "the unique characteristics of outer space require a special lawmaking mechanism which should allow technical experts, government representatives and lawyers specializing in this field to interact together to accommodate both political and legal concerns in regulating space activities."⁹ The fact that the Outer Space Treaty was drafted and negotiated within the COPUOS framework thus supports the above-cited opinion. "Although the Soviet Union was the country which most persistently urged codification of the principles of space law enunciated in United Nations resolutions, particularly in the Declaration of Legal Principles of 1963, it was the initiative of the United States that set negotiations on the Space Treaty in motion."¹⁰ Following the May 7, 1966 statement by President Johnson in which he proposed early discussion of a treaty governing the exploration of the moon and other celestial bodies, on June 17, 1966 the Permanent Representative to the United Nations of the United States tabled the Draft Treaty Governing the Exploration of the Moon and Other Celestial Bodies containing

⁶ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 20.

⁷ B. Cheng, *Studies in International Space Law* (1997), at 205.

⁸ Id.

⁹ H. Qizhi, *The Outer Space Treaty in Perspective*, 25 J. Space L. 91 (1997), at 95.

¹⁰ I.A. Vlasic, *The Space Treaty: A Preliminary Evaluation*, 55 Cal. L. Rev. 507 (1967), at 508.

nineteen articles that in effect elaborated twelve points outlined in the initial President Johnson's proposal.¹¹

In less than a month the Ambassador Extraordinary and Plenipotentiary of the Soviet Union addressed a letter to the Chairman of the Legal Subcommittee requesting "to circulate this letter as an official document of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space" containing the Soviet draft of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, the Moon and Other Celestial Bodies. The draft contained twelve articles and as evidenced by its name was not limited to celestial bodies but also included provisions applicable to activities in outer space, in contrast to the US proposal. "A comparison of the two drafts reveals that both heavily relied in their substantive provisions upon the principles contained in the Declaration of Legal Principles and the General Assembly Resolution 1884 which banned the stationing of weapons of mass destruction in outer space. In addition, both seem to have borrowed from the Antarctic Treaty the concept of inspection to ensure that no prohibited activities would take place on celestial bodies."¹²

With the submission of these two drafts the work on the Outer Space Treaty had commenced. It was negotiated by the then twenty-eight-member Legal Subcommittee of COPUOS during its Fifth Session held in Geneva from July 14 to August 4, 1966, and in New York from December 12 to 16, 1966. During the first few days of the Geneva round of the Subcommittee's Fifth session a belief was expressed that a treaty regulating the conduct of States on celestial bodies and in outer space should be agreed upon as soon as possible. Most of the delegations felt that the principles set forth in the US and Soviet drafts were "a starting point and would be applied in practice later – in particular in the field of liability and the return of astronauts. It was therefore essential to define and codify now the largest number of points of agreement."¹³ Representative of the United Kingdom Lord Caradon expressed the view that "the United States and the USSR were to be congratulated, not only on their dazzling achievements in

¹¹ United Nations General Assembly, *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*, A/AC.105.32. ¹² I.A. Vlasic, *The Space Treaty: A Preliminary Evaluation*, 55 Cal. L. Rev. 507 (1967), at 510.

¹³ P.G. Dembling and D.M. Arons, *The Evolution of the Outer Space Treaty*, 33 J. of Air L. and Commerce 419 (1967), at 428.

the conquest of space, but also on having come forward with proposals for international cooperation."¹⁴

He also noted that "the two texts under consideration were notable for their similarities," but as further work showed there were enough differences to reconcile. Authors point at different positions of the two drafts and ensued argument within the Subcommittee with regard to the use of military equipment on celestial bodies, the principle of assistance and return of astronauts, the provision protecting outer space and celestial bodies from contamination and pollution, provisions contained in current Article X, the obligation to report outer space activities and participation of international organizations in the Outer Space Treaty.¹⁵ Some issues, as evidenced by *travaux préparatoires* proved to be more contentious than the others,¹⁶ but for the purposes of the present book attention will be paid to negotiation of the treaty provisions establishing and elaborating the principle of cooperation. The general debate, it should be noted, "ended in a spirit of great cooperativeness on the part of both space powers, each declaring its readiness to consider the possibility of incorporating in its own draft features not covered therein that appeared in the other's proposal."¹⁷

Almost from the beginning of the negotiations the Soviet Union accepted the principles of freedom of and international cooperation in scientific investigations as proposed in the US draft.¹⁸ During the Fifth session Mr. Vinci of Italy expressed a view that "the United States draft treaty stated one of the major principles to be asserted: namely, the need for international cooperation and the need to make freely available the results of research in space."¹⁹ He continued to suggest that "a new phase of international cooperation might begin, under United Nations auspices, in matters concerning outer space."²⁰ Mr. Ruda of Argentina elaborated on the theses his country believed to be a part of the principle of cooperation. By virtue of this principle "every State should: (1) assist other States carrying on activities in space; (2) help astronauts in

¹⁴ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, Summary Record of the Fifty-Seventh Meeting, Page 17, A/AC.105/C.2/SR.57.

¹⁵ *Cf.*, P.G. Dembling and D.M. Arons, *The Evolution of the Outer Space Treaty*, 33 J. of Air L. and Commerce 419 (1967), at 440-53.

¹⁶ Outer Space Treaty *travaux préparatoires* are available at

http://www.unoosa.org/oosa/en/SpaceLaw/treatyprep/ost/index.html.

¹⁷ B. Cheng, *Studies in International Space Law* (1997), at 222.

¹⁸ Id.

 ¹⁹ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, Summary Record of the Fifty-Eight Meeting, Page 6, A/AC.105/C.2/SR.58.
 ²⁰ Id.

their activities; (3) inform other States of activities taking place in space; (4) make available to other States the results of its research or exploration; (5) seek to prevent any contamination of the earth from space and of space from the earth; (6) seek to cooperate in scientific research conducted in that field; and (7) return to other States objects belonging to them or used by them in the exploration of space.²¹ These views, thus, confirm the great importance of the principle of cooperation in the Outer Space Treaty negotiation, and especially the last one underscores the grand expectations of States from its application in outer space exploration and use.

Despite the discussion held during the Fifth session, authors unanimously acknowledge that the Preamble and the first three articles of the Outer Space Treaty "were generally acceptable to the members of the Subcommittee and provoked little disagreement as to wording. The texts of these provisions were taken almost entirely from the Preamble and Articles I, II and III of the Soviet draft."²² A prominent scholar has noted in this respect importance of the two preambular paragraphs explaining the purposes of the Treaty: the desire "to contribute to broad international cooperation in the scientific as well as the legal aspects of the exploration and use of outer space for peaceful purposes;"²³ and the belief "that such cooperation will contribute to the development of mutual understanding and to the strengthening of friendly relations between States and peoples."²⁴ Both these provisions rely heavily on the principle of cooperation in the hope for peaceful and beneficial for the whole international community exploration and use of outer space, and "both adequately reflect the historical conditions of the origin of the Outer Space Treaty, which was not only a response to the scientific and technical needs of that epoch, but also a substantive contribution to a détente in the cold war."²⁵

Additionally, the technological sphere was surrounded by a complex set of political conditions, including the fact that the space technology was driven forward by military requirements, that the exploration of outer space immediately became the stage of the East-West conflict with a constant struggle for 'space firsts'. "It is in the light of these aspects that the drafting of the Outer Space Treaty has to be understood. The foremost controversies in its text,

²¹ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, Summary Record of the Sixtieth Meeting, Page 2-3, A/AC.105/C.2/SR.60.

²² P.G. Dembling and D.M. Arons, *The Evolution of the Outer Space Treaty*, 33 J. of Air L. and Commerce 419 (1967), at 429.

 ²³ V. Kopal, Treaty on Principles Governing the Activities of States, in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (2008), at 3. February 1, 2015 www.un.org/law/avl.
 ²⁴ Id.

²⁵ Id.

where "free exploration", is demanded next to activities "for the benefit and the interests of all countries irrespective of their degree of economic and scientific development" and "exclusively peaceful uses", reflect the ambivalence and relative insecurity of the times."²⁶

Interestingly, discussions about the need to work on a legal regime for assistance and return of astronauts and space vehicles, and liability for damage caused by objects launched into outer space historically preceded deliberations on the overall legal regime of outer space and celestial bodies exploration and use.²⁷ During the very first meeting of the Legal Subcommittee the topics of liability and assistance and return of astronauts were put on the agenda along with the task of preparing a text on general principles relating to States' activities in outer space.²⁸ but the following sessions mainly dealt with the first two issues. When the Outer Space Treaty negotiations commenced, Mr. Goldberg of the United States pointed out that the draft treaty proposed by the United States "did not deal with the problem of liability for damage caused by space launchings, partly because its complexity seemed to make it an appropriate subject for separate agreement."²⁹ But representatives of developing countries, particularly Mr. Krishna of India expressed regret "that the two conventions on assistance and liability, which were of farreaching importance for the developing countries, had not yet been drafted in final form by the Subcommittee."³⁰ In the end, it was expected that more detailed negotiations on these issues would be continued after the Outer Space Treaty was finalized, and it was decided to limit provisions of the Treaty to basic principles that were further expounded in the elaborating conventions.³¹

By way of conclusion, it took States another year and a half to negotiate the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, which was opened for signature on April 22, 1968 following the first fatal accidents in space exploration. It had been another four years before the Convention on International Liability for Damage Caused by Space Objects was opened for signature on March 29, 1972, due

²⁷ See, United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Third Session, Summary Record of the Twenty-ninth to Thirty-seventh Meetings, A/AC.105/C.2/SR.29-37.

²⁶ M. Benkö and K.-U. Schrogl, "'Free Use of Outer Space' vs. 'Space Benefits'," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 47.

²⁸ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, Summary Record of the Fifty-Seventh Meeting, Page 5, A/AC.105/C.2/SR.57.

²⁹ *Id.* at Page 8.

³⁰ *Id.* at Page 18.

³¹ See, V. Kopal, Treaty on Principles Governing the Activities of States, in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (2008), at 4. February 1, 2015 www.un.org/law/avl.

to the position of the Soviet Union that such a treaty was superfluous, which, on the other hand, was counterbalanced by the favorable attitude of the United States and a majority of non-space powers. And another three years had passed before the Convention on Registration of Objects Launched into Outer Space was developed and opened for signature on January 14, 1975. These, however, are still remarkably short periods of time for negotiating and drafting of the treaties that by and large regulated a completely new area of activity, where only the most general principles were established by way of the Declaration of Legal Principles of 1963 and the recently negotiated Outer Space Treaty. Overall, it has been suggested that three factors facilitated development of international space law in such a short period: a felt need for the new rules, a propitious political climate and due representation of the interests involved, where the last one basically means that agreement of the United States and the Soviet Union was crucial for success.³²

Authors point out that the astoundingly fast pace in negotiation of the Outer Space Treaty can in part be explained by the fact that it was basically a treaty of principles, and most of these principles had already been drafted in the abovementioned Declaration and had secured unanimous support of the United Nations member States.³³ Others claim that the "extraordinary speed at which the Space Treaty was concluded was due unquestionably to the need of such an agreement in advance of man's landing on the moon."³⁴ A rather unique and fortunate geopolitical constellation should also be mentioned as a contributing factor. "Usually a set of legal rights and obligations appreciated by the one superpower already for that very reason alone would look suspicious to the other superpower. Yet, in the particular context of mankind's first exploits in outer space *both* superpowers apparently perceived the legal constraints under discussion to be restraining the opponent more than themselves."³⁵

³² Cf., B. Cheng, Studies in International Space Law (1997), at 205-11.

³³ *Cf.*, P.G. Dembling and D.M. Arons, *The Evolution of the Outer Space Treaty*, 33 J. of Air L. and Commerce 419 (1967), at 425; V. Kopal, *Treaty on Principles Governing the Activities of States, in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies* (2008), February 1, 2015 www.un.org/law/avl; I.A. Vlasic, *The Space Treaty: A Preliminary Evaluation*, 55 Cal. L. Rev. 507 (1967). An opposing view was also expressed: "OST was the intelligent foreseeing of the need for legal regulation of a new set of problems and was a major attempt to lay down ground rules for the future worked out by a group of experts and then submitted to the General Assembly for its action. There may have been an element of compromise of interest in some of its terms, but the fundamental principles of space law were considered largely prospectively in an absence of existing rule, albeit with a harbinger of the General Assembly Resolutions." F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 77.

³⁴ B. Cheng, Studies in International Space Law (1997), at 216.

³⁵ F.G. von der Dunk, "International Space Law," in F.G. von der Dunk (ed.), Handbook of Space Law (2014), at 35.

2.1.2 Principle of Cooperation and its Manifestations

Based on these preliminary considerations a conclusion can be drawn that the Outer Space Treaty has pronounced the principle of cooperation as the basic principle of international space law and outlined the ways it should be implemented by States when using and exploring outer space.³⁶ "The Outer Space Treaty is therefore also often hailed as the "Magna Carta of Outer Space"; the quasi-constitutional document laying the foundation for all rules further (to be) established with respect to outer space. At the same time, its other nickname – the Principles Treaty – makes clear that much of its contents remain very basic indeed, requiring further elaboration and precision on many counts."³⁷ It was in fact stated: "By a principle, or a general principle, as opposed to a rule, even a general rule, but which underlines a rule, of law is meant chiefly something which is not itself a rule, but which underlies a rule, and explains or provides the reason for it. A rule answers a question "what"; a principle in effect answers the question "why"."³⁸

That is to say that the preambular provision calling for "broad international cooperation in the scientific as well as the legal aspects of the exploration and use of outer space for peaceful purposes" is elaborated in greater detail in other provisions of the treaty requiring States not to place in orbit around the Earth objects carrying nuclear weapons or any other kinds of weapons of mass destruction (Article IV), to regard astronauts as envoys of mankind and provide all possible assistance (Article V), to bear international responsibility for national activities in outer space (Article VI), to avoid harmful contamination and adverse changes to the environment (Article IX), to afford an opportunity to observe flight of space objects (Article X), to inform about activities in outer space (Article XI), and to open space stations, installations, equipment and space vehicles to other States (Article XII).

Further, these provisions were extended and deepened in the three elaborating conventions. This was done using one of the two ways. First, by a straightforward expansion of

³⁶ This conclusion is supported by the viewpoint expressed in, V. Kopal, *Treaty on Principles Governing the Activities of States, in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies* (2008), at 2, February 1, 2015 www.un.org/law/avl.

³⁷ F. von der Dunk, "The Undeniably Necessary Cradle – Out of Principle and Ultimately Out of Sense," in G. Lafferranderie and D. Crowther (eds.), Outlook on Space Law over the Next 30 Years (1997), at 404.

³⁸ G.G. Fitzmaurice, "The General Principles of International Law Considered from the Standpoint of the Rule of Law," 92 *Recueil des cours* (1957), at 7, cited in H. Thirlway, *The Sources of International Law* (2014) at 94.

provisions contained in the Outer Space Treaty by adding greater detail about, for example, the scope of State responsibility and liability for damage caused by activities in outer space, by establishing a procedure of compensation claims resolution and so on. Second, it was done by way of creating a legal basis for implementation of the enumerated principles. For example, the Registration Convention established the registration procedure that allowed efficient fulfillment of the obligations pertaining to return of astronauts to representatives of a launching authority. These United Nations outer space treaties "provide the mechanism for States parties to consult one another and to cooperate in solving problems which may arise in relation to the objective of, or in the application of, the provision of the agreements, and that such consultations and cooperation may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with the Charter."³⁹

For example, with regard to Article I of the Outer Space Treaty it has been noted that "most authors in space law agree that this provision does not constitute the basis for specific claims regarding participation, but should be understood as a more philosophical notion, a programmatic principle. It is not self-executing but requires further implementation."⁴⁰ In accordance with Articles VI-VIII of the Outer Space Treaty, States receive important rights and privileges, but at the same time are required to fulfill certain obligations. These provisions of the Outer Space Treaty by providing for a regime of liability for damage caused by a space object and fixing the responsibility to authorize and supervise space activities, thereby, "shut the door on the avoidance of liability and duties as to control and supervision. However, the Treaty is imprecise as to the nature of the liability for damage."⁴¹ Therefore, these articles had to be complemented by separate Conventions in order to provide them with substance, procedure, and a mechanism of implementation. "Combined they constitute another pillar of space law, although not all scientific and commercial possibilities are covered."⁴²

Overall, the principle of cooperation as established in the Outer Space Treaty can be only understood when the Treaty is read as a whole. Scarce references to 'cooperation' in articles providing for certain rights and obligations give guidance about the nature of connection

³⁹ T.C. Brisibe, "A Normative System for Outer Space Activities in the Next Half Century," in *Proceedings of the International Institute of Space Law 2013* (2014), at 27.

⁴⁰ U. Bohlmann, "Legal Aspect of the "Space Exploration Initiatives"," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 235.

⁴¹ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 105.

⁴² G. Lafferranderie, "Basic Principles Governing the Use of Outer Space in Future Perspective," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 16.

between the principle of cooperation established in Article I and the following articles, but nowhere in the Treaty such a connection is clearly articulated. More so, scholars believe that, analyzed comparatively, the principle of cooperation contained in the Outer Space Treaty is less obligatory than the one of, for example, dissemination of information, and is similarly somewhat indefinite as the principle of avoidance of harmful contamination or interference.⁴³ But the overall flow of the Treaty and its interconnectedness with the three elaborating conventions create the legal ground and understanding of the way States should behave to be in compliance with the thrust of cooperation in exploration and use of outer space. With regard to the practical consequences of the cooperative framework stipulated by the Outer Space Treaty and the three elaborating conventions some authors are skeptical. "Reference to cooperation, consultation and due regard for the interests of other states recur throughout the Treaty. Cooperation has, however, been patchy and encouraged by economic and financial considerations rather than the aspiration of the [Outer Space Treaty]. However, such considerations are not to be despised. One result has been the International Space Station."⁴⁴

The last statement is in full compliance with the view expressed earlier. The Outer Space Treaty introduced cooperation as a necessary element of peaceful exploration and use of outer space for the "benefit of all mankind." At the same time it did not impose an obligation to cooperate in its pure version: nowhere in the Treaty can such a wording be found. If one looks at Article I, the exact wording pertinent to cooperation obliges States to facilitate cooperation in *scientific investigation* in outer space. By no means can that phrase be regarded as mandating States to cooperate generally in exploitation of outer space. While 'scientific investigation in outer space' is a broad enough term to cover some parts of the current activities, for example scientific experiments carried out on board the International Space Station,⁴⁵ a reasonable argument cannot go far enough to expand the quoted wording so as to apply to specific Earth observation programs or launch of communication and broadcasting satellites.

Similarly, none of the discussed articles providing for more specific rights and obligations as an extension of the general thrust of cooperation goes far enough to impose obligation to cooperate in the 'obligation of result' dimension even in the most narrow area. To

⁴³ Cf., B. Cheng, Studies in International Space Law (1997), at 252-56.

⁴⁴ F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 58.

⁴⁵ See, National Aeronautics and Space Administration, *Reference Guide to the International Space Station* (2010), February 6, 2015, http://permanent.access.gpo.gov/gpo11658/508318main_ISS_ref_guide_nov2010.pdf

the contrary, these articles, and by extension the elaborating conventions create a 'legal order' where States have rights and obligations toward the whole international community, for example to register its space objects. But these obligations are of such a nature that they are aiming at preserving order, providing information to others again to preserve order in planned or ongoing space activities, and preventing chaos, when interested States are neither aware of what other States are doing, nor are aware of any responsibilities on their side. In other words, they do not create an immediate obligation to cooperate – in either the 'obligation of effort' or the 'obligation of result' dimension of the principle of cooperation – for one particular State toward the other particular State, but they secure the 'atmosphere of cooperation' through legal means.

It has been maintained that "many laws are established in order to create some kind of justice, or at least work towards it; the creation of many others has been motivated by an urge to create some 'rules of the road'; still many more have element of both."⁴⁶ In the light of the above-said, the second motivation seems predominant, at least as applied to the concept of cooperation included in the Outer Space Treaty. That being said, it by no means signals that considerations of justice are absent from the Treaty; quite to the contrary, especially as evidenced by opinions of representatives of developing countries during the Treaty negotiation, preservation of an opportunity to explore and use outer space by those countries in the future was one of the paramount issues on the deliberations agenda.⁴⁷ Thus, both motives can and should be found in the text of the Treaty. With this perspective on the motivation of the Article I principle of cooperation, indeed international legal cooperation in outer space has been sparse and driven by economic, political and strategic considerations of cooperating States and not the broadly and ambiguously worded aspiration of the Outer Space Treaty and the three elaborating conventions.

Based on the analysis of the practice of States some authors contend that fundamental principles of the Outer Space Treaty have acquired the status of norms of customary international law. "Independent of the formal participation in the 1967 Outer Space Treaty, all States should

⁴⁶ F.G. von der Dunk, *The Role of Law with Respect to Future Space Activities*, Space Policy 12:1 (February 1996), at 5.

⁴⁷ See, F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 57. ("It was also important to have the concurrence of as many countries as possible for the sake of universality of the Treaty: as space treaty of limited membership would have been less than useful. In 1967 most UN members did not have a space-faring capability, but this represented the vast majority of the votes in the Assembly. They therefore had a bargaining lever; a universally acceptable treaty would not be adopted without their concurrence. Essentially these states wanted to preserve their future options for when they obtained space technology and became actors in space. In principle they wanted future rights to use outer space equal to the rights of the then current space powers. They therefore sought and got the principle of equality in the use of outer space, particularly in the language of Art. I.")

observe the obligations arising from its provisions because these provisions are binding as rules of customary law."⁴⁸ Such arguments generally refer to 'fundamental principles' of the Outer Space Treaty that are of such nature that they have become customary norms, so further elaboration of the contents of this category is necessary. It has been persuasively maintained that the 'fundamental principles' that have passed into customary law are the following: that international law applies in outer space (Article III), that outer space, including the Moon and other celestial bodies, is not subject to national appropriation by any means (Article II), that outer space is free for exploration and use by all (Article I), but such exploration and use is to be for the benefit of all (Article I), that States are responsible for national activities and the activities of their nationals in outer space, that they are under a duty to authorize and a continuing duty to supervise such activities (Article VI), and that States are liable for damage caused to other States by such activities (Article VII).⁴⁹

The last two provisions are directly relevant to the preceding discussion. It is evident that the principle of cooperation *per se* is not present in the list of the 'fundamental principles' that have transformed into custom, while the provisions elaborating the way the principle should be fulfilled in State practice are present in the list. Cooperation of States in exploration and use of outer space, as formalized by the analyzed treaties, is not about an obligation to cooperate in a broad sense, is not about promotion of cooperation in all areas of space exploitation, and is not about the ways and means States must use in their cooperative efforts. Cooperation is about preserving order, 'rules of the road' by way of compliance with the established norms. And similarly, the customary space law norms do not pertain to the principle of cooperation the way it is understood in general international law, rather to the specific manifestations of a cooperative spirit exhibited by compliance with the registration requirement, bearing responsibility and liability for national space activities.

Customary norms can only be derived from State practice. Fitzmaurice observed that "it is believed to be a sound principle that, in the long run it is only the actions of States that build up practice, just as only the practice ('constant and uniform', as the Court has said) that

⁴⁸ V.S. Vereshchetin and G.M. Danilenko, *Custom as a Source of International Law of Outer Space*, 13 J. Space L. (1985), at 32, cited in T.C. Brisibe, "A Normative System for Outer Space Activities in the Next Half Century," in *Proceedings of the International Institute of Space Law 2013* (2014), at 7.

⁴⁹ See, F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 71.

constitutes a usage or custom, and builds up eventually a rule of customary international law."⁵⁰ Based on this nowadays undisputed evaluation of the role of States in customary norms formation, it is safe to conclude that the principle of cooperation in the broad sense,⁵¹ and even more so the obligation to cooperate in exploration and use of outer space in its 'obligation of result' sense, with the caveat of a mandatory result-oriented cooperation in the maintenance of international peace and security, could not have become a norm of customary international law: precisely because of lacking practice in support of such an obligation. Notwithstanding, the Outer Space Treaty being a treaty of principles has effectively introduced the concept of cooperation in international space relations, albeit by way of obligating States to comply with certain provisions, which are the embodiments of the principle of cooperation as it was detailed in the Treaty. Thus, certain repercussions of this principle have become a custom, while the principle itself as applied to cooperation in outer space activities remains in the 'unsteady' status of a declaratory norm States are encouraged to comply with.

Authors also point out that in the absence of real evidence of 'persistent objectors' combined with plentiful practice of compliance with Articles IV and VII even by non-parties to the Outer Space Treaty, there is "considerable strength in the argument of Carl Q. Christol that the fundamental principles of the [Outer Space Treaty] now come into the category of *ius cogens*, principles of a law that cannot be receded from, any attempt to legislate to the contrary being void."⁵² During the Legal Subcommittee's discussions two proposals – from the Soviet Union and Australia – were tabled regarding relations between the Outer Space Treaty and subsequent treaties. The Soviet proposal effectively advocated making the Outer Space Treaty for space what the United Nations Charter was in the area of the maintenance of international peace and security, probably even attempting to provide a conventional status of *ius cogens* for the Treaty.⁵³ The proposal stated: "This Treaty shall not be construed as affecting the right of States Parties thereto to conclude any international agreements relating to the activities of States

⁵⁰ G. Fitzmaurice, *The Law and Procedure of the International Court of Justice, 1951-54: General Principles and Sources of Law,* 30 British Yearbook of Int'l L. 1 (1953), at 68.

⁵¹ The principle of cooperation in the broad sense includes both the 'obligation of effort' and 'obligation of result'. ⁵² F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 80.

⁵³ Whether Art. 103 of the UN Charter transformed pertinent provisions of the Charter into *ius cogens* norms is a contentious issue; hence, qualification of the proposed clause to the Outer Space Treaty as an attempt to transform all or parts of the Treaty into *ius cogens* norms would depend on the view with respect to the legal effect of Art. 103 of the UN Charter. *Cf.*, J. Pauwelyn, *Conflict of Norms in Public International Law: How WTO Law Relates to other Rules of International Law* (2003), at 337-38.

in the peaceful exploration and use of outer space, provided that such agreements do not conflict with provisions of this Treaty."⁵⁴ Article 103 of the United Nations Charter provides: "In the event of a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail." This clause, just as the clause proposed by the Soviet Union for the Outer Space Treaty, unconditionally prohibits conclusion of subsequent treaties concluded in derogation from the Charter,⁵⁵ making all incompatible treaties illegal.⁵⁶

The Australian proposal, by contrast, merely stipulated that provisions of the Outer Space Treaty were without prejudice to future specific agreements. Despite substantive differences of the two proposals, both suggestions did not spur significant controversy. After all, the Outer Space Treaty was drafted to establish the overarching outer space legal regime, and most would agree that unilateral departing from the Treaty's provisions by way of a new agreement was an undesirable scenario. The proposals, however, came at the very last stage of the discussions in the Legal Subcommittee and thus received little attention. In the end, no provision on the subject was included in the text, but the record of this discussion supports the view that devoting a special place for the Outer Space Treaty in the hierarchy of space law norms was on the agenda of the drafting States. Absence of relevant provisions in the final text, however, might as well signal doubts as to peremptory nature of the Treaty's provisions. But the statements made during the negotiations, especially those by the United States and Soviet Union representatives effectively acknowledging the manifested understanding that the Treaty was without prejudice to the subsequent agreements but was a centerpiece of the outer space legal regime, incline toward a conclusion that the Outer Space Treaty provisions were indeed seen as having a somewhat unique status.

Acknowledging the far-reaching nature of the suggestion that at least some provisions of the Outer Space Treaty can be classified as *ius cogens* norms, and acquiescing to the possibility

⁵⁵ In international practice examples of treaties containing provisions unconditionally prohibiting conclusion of derogating treaties are few; more common are 'conditional' clauses that do not prohibit conclusion of derogatory agreements unless subsequent agreement contradicts 'object and purpose' of the treaty or undermines its fundamental principles. Article 311 of the UN Convention on the Law of the Sea of 1982 is an example. *Cf.*, A. Sadat-Akhavi, *Methods of Resolving Conflicts Between Treaties* (2003), at 89-91.

⁵⁴ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, A/AC.105/C.2/5th Sess./WP.32.

⁵⁶ *Cf.*, W. Karl, "Treaties, Conflicts Between," in *Encyclopedia of Public International Law*, Vol. 7 (2014), at 471-72.

of existence of persuasive divergent arguments, it is suggested to merely recognize existence of such a view and use it only as a contention in support of the earlier made inference about the customary legal nature of the norms described as manifestations of the principle of cooperation in the Outer Space Treaty.⁵⁷ The described discussion about the Treaty's relations with subsequent agreements is additional evidence theretofore.

2.2 Six-Criteria Analysis

With these preliminary considerations about the negotiation history of the Outer Space Treaty and the three elaborating conventions and the asserted scope of the principle of cooperation, the analysis based on the six criteria can be performed. Although, as it has been stated earlier, there is no doubt in the theory of international law about the treaty nature of the analyzed documents, such an analysis is a logical path toward the 'purpose-result' analysis and provides valuable data for the following conclusions about the effectiveness of the treaty category of cooperation in regulating current and future outer space activities.

2.2.1 Membership/Participation

Participation in the four analyzed treaties was decided in slightly different ways. All four explicitly declare that "this Agreement shall be open for all States for signature,"⁵⁸ while the three elaborating conventions add language allowing for international organizations to declare "its acceptance of the rights and obligations provided for in this Agreement and if a majority of the States members of that organization are Contracting Parties to this Agreement and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies."⁵⁹

⁵⁷ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, Summary Record of the Sixty-Seventh Meeting, Page 11, A/AC.105/C.2/SR.67.

⁵⁸ Art. XIV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies; Art. 7 of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space; Art. XXIV of the Convention on International Liability for Damage Caused by Space Objects; Art. VIII of the Convention on Registration of Objects Launched into Outer Space.

⁵⁹ Art. 6 of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space. See also, Art. XXII of the Convention on International Liability for Damage Caused by Space Objects; Art. VII of the Convention on Registration of Objects Launched into Outer Space.

During the Outer Space Treaty negotiation the Soviet Union was the most vocal opponent to allowing international organizations' participation in the Treaty. The 1962 Report of the Legal Subcommittee registered that one of the Soviet proposals was to provide that activities in space 'shall be carried out solely and exclusively by States'.⁶⁰ The political objection boiled down to the Soviet concerns that such international organizations "were mere instruments of United States aggressive or monopolistic designs. From a juridical point of view, it and other States within the Soviet block adopt[ed] what may be regarded as an extremely cautious attitude toward treating international organizations as subjects of international law."⁶¹ As the representatives of the United Kingdom noted, it was a matter of justice to bind international organizations by imposing certain obligations only in case they were entitled to benefits in outer space activities similar to those of States.⁶² Simultaneously, it is also simple justice not to demand that Stateparties subscribe to recognition of legal personality of each and every international organization wishing to accede to the Treaty. Thereby, an intermediate approach had to be elaborated for the following conventions, which, on the one hand, allowed a certain level of international organization's participation, and on the other, guaranteed that only those international organizations recognized and created by State-parties to the treaties were entitled to such participation.

The 'acceptance' procedure had been initially invented during the Rescue Agreement negotiation, but only the Liability Convention *travaux préparatories* thoroughly demonstrated the scope of disagreement between the Soviet-bloc countries and the Western-bloc members of the Legal Subcommittee in regard this issue.⁶³ The former argued that it was not necessary for an organization to be a party to the Convention for it to be bound by its provisions and that it was sufficient for the Convention to merely declare that organizations were subjected to its terms. Representatives of the Soviet Union, Romania, Poland, Hungary and Bulgaria further expressed their regard of international organizations as entities inferior to States on the international plane, and therefore were not prepared to let them either become parties to the Convention or enjoy the

⁶⁰ See, C.W. Jenks, Space Law (1965), at 60.

⁶¹ B. Cheng, Studies in International Space Law (1997), at 240.

⁶² See, United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Sixty-Sixth Meeting, A/AC.105/C.2/SR.66.

⁶³ The Rescue Agreement was discussed by the Legal Subcommittee during its Special Session on December 14, 1967, which lasted only one and a half day. The COPUOS session discussing the Agreement lasted only half a day. The First Committee was by-passed altogether, and the General Assembly received and approved the text of the treaty on December 19, 1967. *See*, B. Cheng, *Studies in International Space Law* (1997), at 274.

same status as States. The delegates from Australia, Canada, Japan, Sweden and the United Kingdom, on the other hand, maintained the view that for an international organization to be bound by the Convention, it was necessary for it to become a party to the Convention or at least to declare its acceptance of rights and obligations under the Convention.⁶⁴

Based on the exact wording used in all three elaborating conventions and views expressed during the Liability Convention negotiation, which by extension can be applied to the Rescue Agreement and the Registration Convention, the following conclusion about the status of international organizations should be supported. "Although international intergovernmental organizations may accept the obligations imposed and the rights conferred by the Convention, they do not become parties to the Convention. This status is reserved exclusively for states; organizations are merely placed in the same position as states for certain purposes."⁶⁵ To be more precise, intergovernmental organizations were granted status of 'quasi-parties' because their possibilities "(a) are limited to the material clauses of the treaty at issue and do not encompass for example the right to propose amendments; (b) are subject to the requirement that the individual member States of such an organization can always be held responsible in conformity with Article VI of the Outer Space Treaty if the organization itself fails to appropriately answer to such responsibility; and in the case of Liability Convention (c) exclude the possibility for direct claims by an intergovernmental organization whilst allowing claimants against such an organization to address the individual member States in case the organization itself fails to rapidly solve the claim."⁶⁶ The same is true for the Rescue Agreement, where an international

⁶⁴ See, United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Fifty-Second Meeting, A/AC.105/C.2/SR.52; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Seventy-Eighth Meeting, A/AC.105/C.2/SR.78; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Fifty-Second Meeting, A/AC.105/C.2/SR.78; United Nations General Assembly, Committee, Summary Records of the Fifty-Second Meeting, A/AC.105/C.2/SR.78; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Ninety-Sixth Meeting, A/AC.105/C.2/SR.96; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Hundred and Fifth Meeting, A/AC.105/C.2/SR.105; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Hundred and Fifth Meeting, A/AC.105/C.2/SR.105; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Hundred and Fifth Meeting, A/AC.105/C.2/SR.105; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Hundred and Fifth, A/AC.105/C.2/SR.105; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Hundred and Fifth, A/AC.105/C.2/SR.105; United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Summary Records of the Hundred and Seventeenth Meeting, A/AC.105/C.2/SR.117.

⁶⁵ W.F. Foster, "The Convention on International Liability for Damage Caused by Space Objects," in C.B. Bourne (ed.), *The Canadian Yearbook of International Law*, Vol. 10 (1972), at 180.

⁶⁶ F.G. von der Dunk, "Contradictio in terminis or Realpolitik? A Qualified Plea for a Role of 'Soft Law' in the Context of Space Activities," in I. Marboe (ed.), Soft Law in Outer Space: The Function of Non-Binding Norms in International Space Law (2012), at 38.

organization's rights and duties are those of a launching authority, and not those of a contracting party.

The conclusions with regard to the participation criterion, therefore, are rather straightforward. Only States are eligible for 'full' participation in all four treaties, whereas international organizations might declare acceptance of the rights and obligations provided in the three elaborating conventions becoming 'second-tier' participants as explained above. Thus, an international organization might declare acceptance of rights and obligations stemming from the elaborating conventions, which in turn are based on the relevant provisions of the Outer Space Treaty, but is not provided with a conventional mechanism to accept the rights and obligations provided in the latter.

As it has been explained above, complete exclusion of possibility of international organizations' participation in the Outer Space Treaty was dictated by the political situation, and more precisely by an intransigent position of the Soviet Union. Although Soviet denial of the status of subject of international law to international organizations was not completely overcome in the following treaties, a compromise had been found. By and large, it can be presumed that every international organization that has declared acceptance of rights and obligations provided by the elaborating convention has also declared acceptance of the Outer Space Treaty provisions. A conclusion to the contrary would have been incompatible with basic rules of logic: if the more detailed provisions of the elaborating conventions, which are extensions of the general provisions of the Outer Space Treaty, are accepted, then the basic provisions are accepted as well. If one accepts the laws of astronomy, then he undoubtedly accepts that the Earth is moving around the sun, but not necessarily vice versa.

2.2.2 Secretariat

Treaties sometimes provide for review meetings, which would require an organ performing secretarial functions. Such organs, as it has been established in the first chapter, might either be an *ad hoc* entity, or a secretariat of a hosting international organization temporary performing secretarial functions for the treaty meeting. The Liability Convention (Article XXVI) and the Registration Convention (Article X) each have a provision calling for such review meetings. The relevant articles state that ten years after the entry into force of the convention, "the question of its review shall be included in the provisional agenda of the United Nations

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General Assembly in order to consider, in the light of past application of the Convention, whether it requires revision." Review conferences of State-parties can be convened after the convention has been in force for five years upon request of one third of State-parties and a majority of States' concurrence.

No revision has ever been formally undertaken. "In both instances the UN did 'review' the Convention, but did not go on to revisions. That could indicate that these treaties are satisfactory, or that there is indifference as to their contemporary suitability, or simply that other matters have taken the attention of the international community. Of these explanations the last appears most cogent. An alternative, however, could be that to re-open them would be to open the proverbial can of worms and end up with an unacceptable mess. It is unlikely that anything approaching unanimity or consensus would be arrived at were these matters to be re-negotiated."⁶⁷ Additionally, the reluctance of States noted earlier to accept any more legally binding obligations pertinent to outer space activities, also contribute to both undesirability of initiating these treaties' revisions and unlikelihood of securing a majority support in favor of such revisions. In the end, even in the improbable event of commencing a review meeting for either of the conventions, it is safe to presume that an entity performing secretarial functions would have been the United Nations Secretariat – simply because the United Nations General Assembly is envisioned as conducting the revision, and its activities are supported by the United Nations Secretariat.

2.2.3 International Legal Personality

Neither of the treaties possesses legal personality, and only their participants do have legal personality, which is reflected by formalized and attested powers to conclude a treaty. For example, the United States Department of State provides the following chronology of the Outer Space Treaty ratification: "Signed at Washington, London, Moscow, January 27, 1967;

Ratification advised by U.S. Senate April 25, 1967; Ratified by U.S. President May 24, 1967;
U.S. ratification deposited at Washington, London, and Moscow October 10, 1967 ;
Proclaimed by U.S. President October 10, 1967; Entered into force October 10, 1967.⁶⁸

⁶⁷ F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 83.

⁶⁸ United States of America Department of State official website, Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, http://www.state.gov/t/isn/5181.htm

2.2.4 Term of Existence

All four treaties are obviously legally binding and are created for an unlimited period of time. The Outer Space Treaty's nickname – the Treaty of Principles – could not have appeared should any of these characteristics have not been met. The principle, in the quoted words of Fitzmaurice, answers the question 'why?' and hence constitutes a basis of knowledge, or legal regulation, and for that reason alone is intended to continue indefinitely. In the same vein, no scholarly discussions about these treaties' contemporariness, effectiveness for regulating new areas of outer space activities, about their future and possible enhancements could have been possible if any of the treaties have been envisioned as remaining in force only for a limited period.

2.2.5 Binding Force of Documents Produced

While all four treaties are quite obviously legally binding on the international plane, they do not provide for an opportunity to adopt any further documents, whether legally binding or 'soft law'. The review meetings provided for in the Liability Convention and the Registration Convention should be concerned, as discussed above, with the review of the texts of the respective treaties and hence do not envision adoption of any separate documents.

2.2.6 Existence of Opportunity to Modify Obligations

Finally, as most international treaties, the Outer Space Treaty's and three elaborating conventions' obligations can be modified using the mechanism of reservations as defined in and regulated by Articles 19, 20 and 21 of the Vienna Convention on the Law of Treaties. The texts of the treaties do not establish special rules for formulation of reservations; hence, the general rules of the Vienna Convention apply. No reservations have been filed up until now; it is therefore not likely that any acceding State would consider it necessary to disrupt the general agreement with the provisions of the treaties. In this context it is appropriate to address the issue of amendments, which have not ever been introduced but remain a possibility, and which in principle might lead to modification of obligations by one group of States and not the others.

It has been suggested that with regard especially to the Outer Space Treaty "amendments are undesirable unless all parties accept them simultaneously. As a general proposition space law would be not well served were divergent versions of the O[uter] S[pace] T[reaty] to be the law as between a variety of parties. The Treaty sets out Principles. Their integrity should be preserved."⁶⁹ Article XV of the Treaty, however, permits a majority of States to amend the treaty with a binding effect on those who accept the amendment. During the Treaty drafting negotiations the Romanian representative pointed out that it hardly seemed appropriate that in a treaty designed to lay down basic principles governing activities in outer space, a situation could be created in which some States would be bound by one version of the treaty, while others were bound by a different one.⁷⁰ And the Swedish intervention suggested that in accordance with the Article XV provision "it would be possible for the amendments to come into force without support of space Powers."⁷¹ Despite these valuable remarks the provision in question received little attention during the discussion,⁷² and formally the Outer Space Treaty can be amended upon acceptance of an unqualified majority of contracting States.

In the light of the above discussion about the status of the Treaty's provisions as customary norms, nowadays introduction of amendments pertinent to those provisions would not create two sets of rules for those States accepted the amendments and those not.⁷³ But at the time of drafting and adoption, and for a certain number of years following the Outer Space Treaty adoption before its relevant provisions presumably transformed into international custom, such a threat remained real. The importance of the Outer Space Treaty coupled with its eminence for outer space exploration stability and the wide support of States ensured that the Treaty of Principles remained homogeneous providing uniform principles for all States. The Rescue Agreement (Article 8), the Liability Convention (Article XXV) and the Registration Convention (Article IX) contain identical amendment clauses, thereby leaving open the opportunity for

⁶⁹ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 58.

 ⁷⁰ United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, Fifth Session, Summary Record of the Sixty-Ninth Meeting, Page 4, A/AC.105/C.2/SR.69.
 ⁷¹ Id.

⁷² See, B. Cheng, Studies in International Space Law (1997), at 263.

⁷³ While international treaties may be terminated by States, customary norms may be amended only by State practice accepted as law. Since certain provisions of the Outer Space Treaty, namely the 'fundamental principles' that presumably constitute the legal foundation of international space law, have transformed into custom, their amendment can only be effectuated by a virtually uniform State practice accepted as law. Amendment of relevant provisions of the Outer Space Treaty would not affect the contents of respective customary norms. Therefore, amending the Treaty using the Article XV procedure without unanimous support, or support of the major spacefaring nations, nowadays does not threaten to create several legal regimes of outer space exploration and use, at least as established by the aforementioned 'fundamental principles' of the Outer Space Treaty. For an in-depth discussion of the ways to amend general international law, customary law and treaties *see*, G. Tunkin, *Is General International Law Customary Law Only*?, 4 EJIL 534 (1993).

introduction of changes into the outer space legal regime. But as discussed above with regard to the review meetings, introduction of any amendments, whether through the revision or amendment procedure, nowadays is unlikely.

2.3 Evaluation and Conclusions

Not much can be added in the concluding section of the present review to what has already been said over the course of the Outer Space Treaty and the three elaborating conventions' existence. Some authors focus on imperfections and omissions of these treaties, others unconditionally praise them as outstanding instances of international lawmaking. As it usually happens, the truth is probably somewhere in between. These four international space treaties are unquestionably remarkable achievements of States, the United Nations, the art of diplomacy, astounding eloquence and uncompromising willingness for concessions. Political climate, science and technology developments, political ambitions, sovereign concerns over its nation's prosperity and security, all also played a role in carving the norms that became commonly known as *corpus juris spatialis internationalis*.

In the early years of the international space law development an agreement was reached that due to rapid and unpredictable development of space technology, and also owing to uncertainties of the Cold War rivalry, a comprehensive space agreement would be premature. It was suggested that "the most probable trend in the modalities of prescription with respect to most of the new problems created for the general community by access to space can, therefore, be expected to be away from explicit formulations in special conferences and multilateral agreements and more representative of the gradual processes of building shared expectations through customary development."⁷⁴ Fortunately, space law development took a different evolutionary path, and today the pure outcome is indisputable: States aimed to regulate outer space activities by way of creating a universal regime of its exploration and use and ensuring that outer space will not become a theater of war, and this result has been achieved through the most stable and respectable form of behavior regimentation, the treaty.

While some might disagree that the military-related purpose has indeed been achieved given the limited scope of the demilitarization provisions contained in the Outer Space Treaty,

⁷⁴ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 115.

the net result is still true – outer space has not become a theater of war, at least as of yet. And work in this direction is still being done, within the United Nations Disarmament Conference, by introduction of the Russo-Chinese draft of the Treaty on the Prevention of the Placement of Weapons in Outer Space and the Threat of Force against Outer Space Objects, by drafting and negotiating the Code of Conduct for Outer Space Activities. And all these efforts are based on the provisions of the Outer Space Treaty banning placement of weapons of mass destruction in outer space and on celestial bodies, which might be considered imperfect from the modern legalistic perspective failing to attribute the deserved value to the difficulties of negotiating disarmament provisions in the midst of the Cold War.

The 1968 Rescue Agreement is said to be a classic example of how not to make a treaty because the haste in which the text was prepared and rushed through the United Nations resulted in a poorly drafted instrument, achieving virtually nothing and yet creating at the same time a host of unresolved problems and difficulties.⁷⁵ Nor was the Liability Convention praised as an outstanding legal document, while, undoubtedly, it had been drafted more carefully, and was able to establish a more or less comprehensive regime of liability and claims settlement procedure in outer space activities. The Registration Convention's definition of the launching State until today induces dissatisfaction, eloquent discussions and analyses, and at times real full-fledged practical problems. Having said that, it is hardly disputed that legal precision and clarity, being a very important characteristic of any legal document, cannot guarantee the document's success: no treaty, however well drafted, would be effective, unless the parties observe it in good faith. "While it is important to work toward judicial purity, legal perfectionism which ignores political reality would result in the elaboration of magnificent texts which would never come into force. Instead, it is important to continue to find the right balance between political requirements and possibilities and the need for precise legal wording."⁷⁶

"The Outer Space Treaty has weathered many storms and has proven to be leak free. The question, however, can and must be asked whether in the coming thirty years the old vehicle of the Outer Space Treaty can still live up to the speed required. It is up to the international regulators to continue their efforts with the shining example of the Outer Space Treaty 1967 to

⁷⁵ See, B. Cheng, Studies in International Space Law (1997), at 285.

⁷⁶ N. Jasentuliyana, International Law and the United Nations (1999), at 41.

offer the legal framework ensuring fair access and fair trade. This will lead to a fair space."⁷⁷ To achieve a fair space attention must be given not only to substantive rules, which probably should be left untouched, but the machinery of coordination, cooperation and, where necessary, supervision.⁷⁸ Substantive rules of the Outer Space Treaty have been effectively regulating outer space exploration and use for almost fifty years; and throughout half a century the Treaty has been instigating mostly rapturous evaluations of scholars – are not these persuasive arguments in favor of preserving the Treaty in its original version? More so, the ever-complicating political, economic, financial, environmental, social atmosphere of international relations prompts the conclusion that we are better off with the old proven rules. The proverb goes: "Don't bite the hand that feeds you." Or: "Half the loaf is better than no bread." Let us not open the proverbial can of worms and Pandora's box.

"The basic ideas behind the space treaties are maintenance of international peace and security and the promotion of international cooperation and understanding."⁷⁹ All these are *basic ideas*, not the end results that had to be achieved. And if viewed from this angle, the Outer Space Treaty and the three elaborating conventions have fully accomplished their basic ideas. Every mechanism of cooperation in outer space exploration and use is based on and relies on their provisions. The UNISPACE conferences, the International Space Station, bilateral treaties, the European Space Agency, all mechanisms of cooperation in the end draw inspiration and legal basis from the Outer Space Treaty and the conventions that provided for a more detailed and comprehensive version of the Treaty of Principles' provisions. And this contributes to the accomplishment of their basic ideas.

⁷⁷ R. P. Kröner, "International Agreements and Contracts," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 47.

⁷⁸ Cf., B. Cheng, Studies in International Space Law (1997), at 264.

⁷⁹ N. Jasentuliyana, International Law and the United Nations (1999), at 40.

Chapter 3. United Nations and Committee on Peaceful Uses of Outer Space

3.1 Overview

The United Nations and its Committee on Peaceful Uses of Outer Space (COPUOS) have been hailed as the focal point for international cooperation in outer space and for the development of international space law.¹ In a sense, COPUOS is indeed a progenitor of all outer space cooperation not only because historically it was the first international forum for cooperation, but also due to its extraordinary role in development of the body of international space law as we know it today. COPUOS continues to be an important part of the international space cooperation system, although its regulatory role along with its influence has been diminishing over the past years.

In this chapter the genesis and evolution of this mechanism of cooperation will be reviewed. By looking at the Committee's composition, rules of procedure and methods of work, strengths and weaknesses of this mechanism of cooperation will be identified and its current role in international space cooperation will be evaluated in order to outline areas and issues in exploration and use of outer space, which currently can be best addressed using the COPUOS mechanism. The Committee is a unique forum where the representatives of States have the possibility of raising any topic related to the use of outer space.² Despite certain drawbacks in COPUOS' recent history, it is only in the interest of all States concerned to utilize this unique mechanism of cooperation to their greatest benefit.

The United Nations General Assembly Resolution 'International Co-operation in the Peaceful Uses of Outer Space' for the first time recognized the status of the United Nations as a focal point for international cooperation in exploration and use of outer space.³ It laid "a good foundation for the UN to become the center of coordination in this field,"⁴ while the first step in establishment of the primary role of the United Nations in regulation of outer space activities

¹ See, N. Jasentuliyana, International Space Law and the United Nations (1999), at 3.

² Cf., K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 93.

³ UNGA Res. A/RES/1721(XVI), 20 December 1961.

⁴ L. Minwen, "Evolution from Policy towards Law: International Cooperation in the Peaceful Uses of Outer Space," in *Proceedings of the International Institute of Space Law 2013* (2014), at 626.

was made in 1958 with the creation of an *ad hoc* Committee. This step was prompted when the Permanent Representative of the United States to the United Nations addressed a letter to the Secretary General requesting that an item 'Programme for International Cooperation in the Field of Outer Space' be placed on the agenda of the General Assembly at its thirteenth session in 1958. The letter called for the Assembly to establish an *ad hoc* Committee to "make the necessary detailed studies and recommendations as to what specific steps the Assembly might take to further man's progress" in outer space and "to assure that outer space will be used solely for the benefit of all mankind."⁵ On December 13, 1958 the General Assembly adopted a resolution establishing an *ad hoc* Committee despite the dissent of the Soviet Union, Czechoslovakia and Poland.⁶ By 1959, COPUOS was transformed into a permanent organ.

The establishment of a new body, however, did not go flawlessly. "The Soviet Union first boycotted the Committee for not being sufficiently representative, also asking that its decisions be made by consensus rather than by majority vote as the West had suggested."⁷ A Soviet scholar opined that it was only natural that the Soviet Union, other socialistic countries along with India and the United Arab Republic refused to participate in the Committee's work with its initial membership, when out of eighteen member States of the Committee twelve were US allies in military blocks.⁸ The Soviet bloc countries confirmed their dissatisfaction with the COPUOS composition despite the declaration of the Committee's President that "the Committee will never be permitted to act in any sense whatsoever as an instrument of the cold war," echoed by statements of the representative of the United States.⁹

"An agreement was finally reached to create a Committee of 24 members that was designed as a subsidiary body of the General Assembly, to which it was to report, thus underlying its strongly political character. Cold War politics were also decisive in attributing leadership in a Committee in which a careful balance between East and West was to be achieved. Austria, a neutral country, was chosen to take the chair of the main Committee, now called

⁵ See, N. Jasentuliyana, International Space Law and the United Nations (1999), at 2.

⁶ Cf., P.C. Jessup and H.J. Taubenfeld, *The United Nations Ad Hoc Committee on the Peaceful Uses of Outer Space*,
53 Am. J. Int'l L. 877 (1959), at 877.

⁷ P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 11.

⁸ See, Верещетин В.С. Космос. Сотрудничество. Право [Outer Space. Cooperation. Law.]. М.: Наука. 1974. С. 91-92.

⁹ See, P.C. Jessup and H.J. Taubenfeld, *The United Nations Ad Hoc Committee on the Peaceful Uses of Outer Space*,
53 Am. J. Int'l L. 877 (1959), at 877.

COPUOS; the other members of the bureau being Romania as Vice-Chair and Brazil as Rapporteur. A certain balance between East and West was also maintained in attributing the chairs of two Subcommittees of COPUOS, the Legal Subcommittee long having been chaired by a representative of Eastern countries, while the chair of Scientific and Technical Subcommittee remained in hands of the Western group of countries.¹⁰ The first session of the full Committee took place only in March 1962.

At the first session the new Chairman Ambassador Franz Matsch "read into the record a carefully drafted statement, which had resulted from extensive US-Soviet negotiation, to the effect that the Committee would endeavor to proceed by consensus wherever possible and dispense with the need for voting subject to the understanding that the General Assembly rules of procedure, making voting possible, would continue to apply."¹¹ In practice, consensus has been uninterruptedly used since 1962. "The UN Committee on Peaceful Uses of Outer Space was the first UN standing body to use this procedure in its purest form."¹²

While the principle of consensus has been probably the most widely discussed feature of the Committee's constitution, it was born as a concession to Soviet demands, which had predominantly political, not legal underpinnings. The consensus voting procedure has led to multifaceted results. On the one hand, it was suggested that consensus was absolutely essential because only two space powers existed and every decision had to be agreed first and foremost with them; for the rest of the States it would be rather impracticable to adopt regulations which were contrary to the views of the real space powers, otherwise a legal rule on outer space would probably never be applied or would be useless anyway.¹³ In the same vein, it was argued that consensus was a desirable way of achieving international accord because the process of seeking agreement continued with patience and was not cut off suddenly by a vote which could defeat a discussion that might have come to fruition had more time been taken with the give-and-take process of consensus.¹⁴

¹⁰ P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 11.

¹¹ P. Jankowitsch, *Contributions of the United Nations Committee on the Peaceful Uses of Outer Space: An Overview*, 5 J. Space L. 7 (1977), at 8.

¹² *Id.* at 12.

¹³ See, E.R.C. van Bogaert, Aspects of Space Law (1986), at 263.

¹⁴ See, E. Galloway, "Creating Space Law," in N. Jasentuliyana and R.S.K. Lee (eds.), *Manual on Space Law*, Vol. I (1979), at 248.

On the other hand, "it is often a long and exhausting way from the identification of a legal problem by UNCOPUOS to the adoption of relevant legal norms which are either incorporated into an international agreement for consideration by the UN General Assembly or an UNGA Resolution."¹⁵ Hence, drafting of even 'soft law' documents, which end up being adopted in the form of a General Assembly resolution, might take years without any guarantee that they actually would be complied with. By and large, despite all criticism, development and adoption of major space treaties using the consensus procedure provided them with broad international acceptance, particularly from the major space powers, which could, thus, identify with the compromise solutions found in the Committee.¹⁶

The Committee at its second session in 1962 created two subcommittees, the Legal Subcommittee and the Scientific and Technical Subcommittee, "to assist it in the study of the many specific proposals and suggestions concerning scientific, technical and legal studies made by members of the Committee for the development of international cooperation in the field of space exploration for peaceful purposes."¹⁷ In the end, the work of the Committee was allocated between three separately functioning bodies: the Legal Subcommittee, the Scientific and Technical Subcommittee, and the Main Committee. The three bodies are meeting separately: the Scientific and Technical Subcommittee usually meets for a two-week session in February, the Legal Subcommittee meets for its two-week session in early spring, and the Main Subcommittee to review Reports from both Subcommittees, but at the same time no specific procedure has been established to facilitate communication between the Subcommittees.

3.2 Six-Criteria Analysis

3.2.1 Membership/Participation

COPUOS is a traditional intergovernmental body allowing exclusively States to become members. Procedurally, addition, and presumably exclusion – though that has never happened –

¹⁵ M. Benkö and K.-U. Schrogl, *International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space* (1993), at 9.

¹⁶ See, P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 12.

¹⁷ N. Jasentuliyana, International Space Law and the United Nations (1999), at 24-25.

of new members requires a General Assembly resolution to that effect. In 1959 the Committee's membership was limited to eighteen States,¹⁸ but it has been steadily growing ever since. Nowadays, the Committee has evolved into one of the largest committees in the United Nations. In accordance with the United Nations General Assembly decision 70/518 of 2015, it includes representatives of eighty-three States.

From the beginning the Committee has also allowed participation of intergovernmental and nongovernmental entities dedicated to international space cooperation in the status of observer.¹⁹ Since 1962, thirty-four international entities with proven interest in space activities have been granted the status of observer. It should be noted, however, that while this status as of 2016 has been granted to nongovernmental organizations, the private sector has been excluded from participation in COPUOS.²⁰

The greater involvement of a growing number of States in outer space activities, particularly in the recent years, has understandably prompted more States to seek COPUOS membership.²¹ Since the beginning of the twenty-first century Committee's membership has increased by thirteen States, making COPUOS not only very representative, but also harder to manage. In 1972, when the last widely supported treaty was drafted, the Committee had twenty-eight States. In 1979, when the last legally binding treaty was adopted, its membership had grown to forty-seven States. If one agrees that arriving at a mutually acceptable text of a treaty is hard enough between two dozens States, reaching an agreement with over eighty States present seems an almost impossible task.

3.2.2 Secretariat

A large committee needs an advanced secretariat. COPUOS is supported and serviced by a special unit in the United Nations General Secretariat, the United Nations Office for Outer

¹⁸ UNGA Res. 1348 (XIII), December 13, 1958.

¹⁹ Cf., S. Marchisio, The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space, 31 J. Space L. 219 (2005), at 223.

²⁰ See, K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 99.

²¹ In the first decades of the COPUOS existence, however, inclusion of the new members was justified not by the increasing number of States active in space activities, but by the growing membership of the United Nations. For example, the UNGA Resolution 3182 (XXVIII) of December 18, 1973 that resulted in addition of new 9 members to COPUOS stated: "Bearing in mind that, since the establishment of the Committee on the Peaceful Uses of Outer Space in 1961, the *membership of the United Nations* has been considerably increased and a corresponding enlargement of the Committee is therefore desirable."

Space Affairs in Vienna, Austria.²² The Office for Outer Space Affairs, however, is not specifically dedicated to acting as the COPUOS secretariat. It is also responsible for implementing the United Nations Secretary-General's responsibilities under international space law and maintaining the United Nations Register of Objects Launched into Outer Space; it is responsible for implementation of the United Nations Programme on Space Applications; it maintains a 24-hour hotline as the United Nations focal point for satellite imagery requests during disasters; it manages the United Nations Platform for Space-based Information for Disaster Management and Emergency Response; and, finally, it serves as a secretariat of the International Committee on Global Navigation Satellite Systems.

Thereby, it is quite clear that acting as the COPUOS secretariat is not the only and not the main function of the Office. Although sessions of the Main Committee and the Subcommittees last only six weeks, preparation of these sessions, facilitation of communication between members and communication of necessary information continues throughout the year necessitating day-to-day functioning of the secretariat. But despite the various responsibilities performed by the Office for Outer Space Affairs, it has been able to provide excellent secretarial support for all COPUOS activities, including in conjunction with three UNISPACE conferences, which will be discussed in detail in Chapter 4.

In its functions performed for COPUOS, the Office has a dual objective of supporting the intergovernmental discussions in the Committee and its Scientific and Technical Subcommittee and Legal Subcommittee, and of assisting developing countries in using space technology for development. Secretarial functions are performed by the Committee, Policy and Legal Affairs Section of the Office. The Section has two-fold functions: that of a substantive secretariat, and of an expert research group preparing documents on the COPUOS request. The reports and studies prepared by the Office for the use of the Committee and its subsidiary bodies have ranged from background information to comprehensive studies in various fields of space research, including practical applications of space technology, space law and organizational questions relating to international cooperation in those fields.²³

²² Cf., M. Benkö and K.-U. Schrogl, International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space (1993), at 6.

²³ For more information on reports and studies prepared by the Office *see*, United Nations Office for Outer Space Affairs official website www.unoosa.org.

3.2.3 International Legal Personality

During the 1959 session of the United Nations General Assembly, COPUOS received a permanent status and was entrusted with the mandate "to review, as appropriate, the area of international cooperation, and to study practical and feasible means for giving effect to programs in the peaceful uses of outer space, which could appropriately be undertaken under United Nations auspices" and "to study the nature of legal problems, which may arise from the exploration of outer space."²⁴ Furthermore, the resolution requested the Committee to submit reports on its activities to subsequent sessions of the General Assembly. While this Resolution provided only a sketchy outline of the Committee 's functions, it mirrored the hope that the United Nations through the newly created committee might become a pivotal element in the international coordination of space activities.²⁵ From an institutional perspective, this resolution firmly established subordination to the General Assembly of the Committee, making the latter responsible to the former.

Generally, COPUOS is a committee within the structure of the United Nations created by way of the General Assembly resolution. Thereby, COPUOS, despite its eminent role in development of international space law, institutionally is an organ of an international organization. The 1949 *Reparation Case* unequivocally stipulated that the United Nations is an international legal person possessing international legal personality. This characteristic, however, only stands for the United Nations as a whole, not for its organs or subdivisions. Without further ado, it should be concluded that COPUOS does not have international legal personality on its own, institutionally being an organ of an international organization.

3.2.4 Term of Existence

The General Assembly Resolution 1472 (XIV) in paragraph 1 stated that the Committee on the Peaceful Uses of Outer Space consisting of eighteen States, whose members would serve for the years 1960 and 1961, was to be established. Literal reading of the text suggests that *members* of these twenty-four States were required to serve a two-year term, presumably allowing for change of the Committee membership in 1962. A contextual reading, however, also

²⁴ UNGA Res. 1472 (XIV) of December 12, 1959.

²⁵ Cf., M. Benkö and K.-U. Schrogl, International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space (1993), at 2-3.

suggests a conclusion that the Committee was created for a two-year period – since an organ can hardly exist without any members.

The General Assembly Resolution 1721 (XVI) commended States for adherence to the principle of prohibition of outer space national appropriation, noted with satisfaction progress in meteorological and communication capabilities and requested that COPUOS commences cooperation with the World Meteorological Organization and the International Telecommunication Union. Further, the resolution states: "Noting that the terms of office of the members of the Committee on the Peaceful Uses of Outer Space expire at the end of 1961, ... Decides to continue membership of the Committee on the Peaceful Purposes of Outer Space as set forth in General Assembly Resolution 1472 (XIV) and to add Chad, Mongolia, Morocco and Sierra Leone to its membership in recognition of the increased membership of the United Nations since the Committee was established." Reading of the two resolutions together suggests, therefore, that in 1959, when the Committee was created, technically, it was created for an indefinite period of time, while the tenure of its members was limited to two years. And the 1961 resolution, in its initial parts addressed certain requests to the Committee as if it was obvious that the Committee was going to continue its work, and only in the concluding part recalled that the tenure of the Committee's members - not the Committee itself - was about to expire, and decided to extend their membership, this time for an indefinite period.

Strictly speaking, therefore, the Committee at the outset was created for an indefinite period, but initially had its membership composition to be limited to a two-year term. Negotiations that took place between 1959 and 1961 allowed arriving at a decision that the Committee membership would not be rotating, and that States initially invited in COPUOS should continue their work. As of 2016, the Committee has been working uninterruptedly and is likely to continue working, at least in the foreseeable future. Overall, a conclusion is offered that COPUOS has been created for an indefinite term.

3.2.5 Binding Force of Documents Produced

The General Assembly Resolution 1472 (XIV) in outlining functions of the Committee limited regulatory influence of the new body to "study [of] the nature of legal problems which may arise from the exploration of outer space," thereby not providing it with any law-making authority. In practice, COPUOS is authorized to produce two types of documents: internal

documents in the form of Committee's or Subcommittees' reports, and drafts of documents to be adopted by the United Nations General Assembly. The former are legally non-binding internal documents that rarely include any substantive decisions, and generally serve as a review of activities undertaken by the Committee or the Subcommittees during the session. The latter were the texts that later on became the five outer space treaties and four sets of principles.

Procedurally, development of every document, or a draft, that is intended for further General Assembly endorsement has to go through several steps. First, the issue should be included in the agenda of either the Legal Subcommittee or the Scientific and Technical Subcommittee. Just before the UNISPACE-III conference the German delegation together with several other delegations presented a new structure for the work of the two Subcommittees.²⁶ The proposal envisioned four categories of agenda items: standing items, including "General exchange of views" and "Status of the outer space treaties"; single issues, which are decided upon the preceding year and which are generally discussed only for one year in the plenary; items covered by a multi-year work plan are discussed within working groups; and an item on future issues, where issues can be proposed for becoming either single issues or items covered by a work plan. Inclusion of any new item requires consensus of all delegations present, which, along with the requirement that any item becoming a part of a work plan has to first go through a plenary discussion in a status of a single issue item, has assuaged wariness of inclusion of a contentious issue in the long-term work of either Subcommittee.

"With 'single issues' and 'multi year workplans' the almost grotesque fear of delegations that any issue that could make it to the agenda of one of the Subcommittee might ultimately and inescapably lead to political disaster, was appeased. A decade in the [Legal Subcommittee] with just one new agenda item obviously was too much even for the most frightened delegation, and so establishing categories of agenda items with clear goals and durability ... brought new wind into the discussions."²⁷

²⁶ For the Scientific and Technical Subcommittee see, the Working Paper presented by Germany on behalf of Austria, Canada, China, the Czech Republic, France, Greece, Hungary, Italy, Japan, Morocco, Romania, the Russian Federation, Spain, Sweden, Turkey, the United Kingdom and the United States, UN Doc. A/AC.105/C.1/L.227 of 25 February1999. For the Legal Subcommittee see, the Working Paper presented by Germany on behalf of Austria, Canada, France, Greece, India, the Netherlands, Sweden and the United States, UN Doc. A/AC.105/C.2/L.217 and Corr.1 of 3 March 1999.

²⁷ K.-U. Schrogl, *Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011*, 60 ZLW 93 (2011), at 95.

Indeed, Subcommittees' reports of the recent years have seen the addition of new agenda items and modification of those already under discussion,²⁸ so it was even suggested that the Scientific and Technical Subcommittee "almost hyperactively submerged itself into structured work" nearly transforming its sessions into a technical congress and not an intergovernmental committee.²⁹ Therefore, today, unlike some fifteen years ago, inclusion of a new issue into a Subcommittee's agenda is not seen anymore as being confronted with an insurmountable obstacle.

The next step is actual work on the issue in the Subcommittee, possibly within a specially created Working Group, drafting, discussions, re-drafting and some more discussions. The consensus voting procedure is used throughout the Committee, so the future text should endure the test for compatibility with views of seventy-seven diplomats and their respective governments from all over the world representing developed, developing and under-developed countries. It took the Committee over five years to agree on the Space Debris Mitigation Guidelines, which in turn were built on the guidelines released by the Inter-Agency Space Debris Coordination Committee,³⁰ despite their legally non-binding nature and not particularly stringent standards. This case is exemplary of the complexities of the Committee's internal procedure for document negotiation.

Upon adoption by the Subcommittee, the document is passed to the Main Committee for endorsement. In the recent years the Main Committee has been willing to endorse Subcommittees' reports and proposals and to transfer them to the General Assembly for its endorsement. In the first decades of COPUOS work, however, when legally binding treaties were drafted and presented, their texts caused more passionate debates. Depending on the legal nature of the proposed document, then, different levels of scrutiny should be expected. A disclaimer should be added, however, that nowadays a legally binding document, or, more precisely, a

²⁸ E.g., in 2012 the Legal Subcommittee included a new agenda item 'Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space' under a five-year workplan; and the Subcommittee also agreed to include a new agenda item 'National Legislation Relevant to the Peaceful Exploration and Use of outer Space' as a new regular item on its agenda. Report of the Legal Subcommittee on its fifty-first session, held in Vienna from 19 to 30 March 2012, A/AC.105/1003.

²⁹ Cf., K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 96.

³⁰ Cf., N.R.F. Al-Rodhan, *Meta-Geopolitics of Outer Space: An Analysis of Space Power, Security and Governance* (2012), at 181-82.

proposal of such a document, probably would not even pass the 'agenda item' stage of the process.

The final stage of the process is the United Nations General Assembly endorsement; and in the case of a legally binding document a process of ratification should also be completed. Overall, the Committee does not have a law-making authority; the Main Committee and the Subcommittees are entitled to adopt legally non-binding internal documents, for example reports of their sessions. Adoption of a 'higher level' legally non-binding document and, of course, a treaty can only be done through the procedure of the General Assembly endorsement and further national ratification in the case of a binding treaty. In other words, for a COPUOS-drafted document to gain any level of political, more so legal, value, it has to be approved on the Assembly- and State-level.

In the 1970s a scholar opined: "Due to the universal membership and proclaimed goals of the UN and its organs, including the Outer Space Committee, it is the most appropriate place for international legal regulation of States activities in outer space."³¹ It is no secret, though, that COPUOS has not drafted a single treaty in thirty-five years. Judging by the tone and contents of its annual reports, there is little prospect that this trend may change in the near future. It has been repeatedly noted that a movement back to legally binding commitments should be initiated, particularly to address "the most important and pressing problem of space flight and exploration, namely the mitigation of space debris."³²

More broadly, COPUOS as the main platform for agreeing on space law development is said to have gone through four phases. In the first phase, COPUOS produced several legally non-binding Resolutions with considerable political and moral force.³³ The second, law-making phase, was premised on the understanding that establishment of a legal foundation for space activities was a matter of urgency, and culminated in development and adoption of five outer space treaties, which outlined legal principles of outer space exploration and use. The Moon Agreement³⁴ marked conclusion of the law-making phase and the next, the soft law principles

³¹ Верещетин В.С. Международное сотрудничество в космосе [*International Cooperation in Outer Space*]. М.: Наука. 1974. С. 113.

³² S. Hobe, Celebrating 50 Years of Legal Work in the United Nations' Committee for the Peaceful Uses of Outer Space, 61 ZLW 2 (2012), at 2.

³³ See, F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 38.

³⁴ Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, done 18 December 1979, entered into force 11 July 1984, 1363 U.N.T.S. 3.

phase, followed. During that period COPUOS focused on further development of the space law regime as established by the five treaties through negotiation of a set of Principles, each concerned with a rather specific area of space applications.³⁵ "In this sense, the intention of the drafters of the Principles was exactly to adopt mere declarations not binding *per se*."³⁶

The fourth phase in COPUOS development is characterized by efforts to broaden the acceptance of the existing space treaties and to provide comprehensive assessment of the practice of their application.³⁷ At the same time, the current state of space activities has transformed from the government- and military-focused industry to an increasingly private sector-oriented sphere with multiplying practical down-to-Earth applications, which have already become an integral part of modern society. "The result was an overall lessening of the coherence of all international law relevant to space" as a consequence of transformation of the United Nations treaties into the 'foundation' of contemporary space law, and elevation of other legal regimes, including constitutions and other regulations of international space organizations, specific regimes created for specific space projects, multilateral and bilateral treaties addressing a specific realm of space activities, to a prominent role in modern international space law.³⁸ Not surprisingly, this shift causes concerns about the future role of COPUOS in development of international space law and its relevance altogether.³⁹

3.2.6 Existence of Opportunity to Modify Obligations

As it has been noted above, COPUOS is not authorized to adopt legally binding documents. The only type of documents that the Main Committee and its Subcommittees adopt on their own behalf is the sessions' reports. The reports cover procedural matters, including adoption of current agenda, membership and attendance, and provide an overview of the

³⁵ Principles Governing the Use of States of Artificial Earth Satellites for International Direct Television Broadcasting, UNGA Res. 37/92, of 10 December 1982, A/AC.105/572/Rev.1; Principles Relating to Remote Sensing of the Earth from Outer Space, UNGA Res. 41/65, of 3 December 1986, A/AC.105/572/Rev.1; Principles Relevant to the Use of Nuclear Power Sources in Outer Space, UNGA Res. 47/68, of 14 December 1992, A/AC.105/572/Rev.1; 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, UNGA Res. 51/122, of 13 December 1996, A/RES/51/122.

 ³⁶ S. Marchisio, *The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space*, 31 J. Space L. 219 (2005), at 232.
 ³⁷ Id. at 224-25.

³⁸ F.G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 106-07.

³⁹ Id.

substantive issues under consideration. Sections of the reports addressing particular substantive issues that are being discussed, however, only provide a review of topics brought up for the discussion, presentations made by delegations, and of general exchange of views. No decisions on substantive issues under consideration are being adopted; the only type of precisely formulated decisions that can be found in the reports concerns the items of agenda to be discussed during the next session.

In the absence of a law-making authority and in virtual absence of any decisions concerning substantive issues, no procedure to modify obligations is necessary. Moreover, recalling that COPUOS has been uninterruptedly using the consensus voting procedure since 1962, the very concept of unilateral modification of decisions adopted by the Committee is at odds with the adopted methods and ethics of COPUOS's work.

3.3 Evaluation and Conclusions

In considering the legal nature of COPUOS, it should be noted that the Committee is classified as a standing subsidiary organ of the General Assembly in accordance with Article 7(2) of the United Nations Charter. Consequently, "its composition and functions are established by a decision of the plenary organ, which can always modify UNCOPUOS membership and its mandate by an act of the same nature, without amending the United Nations Charter."⁴⁰

Therefore, COPUOS is a part of the United Nations, an international intergovernmental organization, and, strictly speaking, cannot possess any other characteristics, as analyzed using the six criteria, than that of the United Nations. The Committee has States-only membership; functions of the COPUOS secretariat are performed by another United Nations organ; COPUOS's term of existence is limited only by the will of States and currently should be presumed to be indefinite. Being an organ within an organization, the Committee cannot possess international legal personality despite the unquestioned status of the United Nations as a subject of international law. The Committee is not authorized to adopt legally binding documents or impose any, even political, obligations on its members; hence, there is no need to provide for an opportunity to modify obligations.

⁴⁰ S. Marchisio, *The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space*, 31 J. Space L. 219 (2005), at 221.

The status of a subordinate body of the General Assembly underlines the political nature of the COPUOS operation, on the one hand, and reaffirms its dependence on decisions adopted by all members of the United Nations, on the other. In the end, the General Assembly has the ultimate authority over COPUOS, its membership, rules of procedure and even existence.

3.3.1 Institutional Weaknesses: Analysis and Proposals

A former British diplomat who had much to do with the United Nations wrote: "The United Nations is a mirror of the world around it, and if the reflection is ugly, the organization should not be blamed."⁴¹

This conclusion applies to COPUOS only to a certain extent. In the 1990s COPUOS "became a rather lame institution with a static agenda and almost no output, facing the risk of sclerosis or implosion."⁴² There is little doubt that this transformation was mainly caused by States themselves, by their reluctance to develop more legally binding norms, by the continuous struggle between developed and developing countries on the question of forced cooperation and transfer of resources and technologies, which culminated in and was resolved by the 1996 Space Benefits Declaration, by the growing military uses of outer space triggered by further enhancement of relevant technologies, and by active participation of more States in exploration and use of outer space causing geopolitical tensions and growing security concerns. The list can undoubtedly be continued.

But there are more subtle reasons that cannot be completely attributed to particular States' behavior. Any intergovernmental body is an 'artificial' entity comprised of representatives of States, and in this sense only States can be responsible for organizations' success or failure. An intergovernmental body, at the same time, is more than a sum of its members; behavioral dynamics of a group are dramatically different from that of an individual, as it has been noted by almost every sociologist and psychiatrist since Freud. And there are at least three issues, which in combination with other factors contributed to the Committee's downturn, which could and should have been addressed on the entity level. After all, the Committee Services and Research Sector of the Office for Outer Space Affairs has provided excellent research services to COPUOS over the years, preparing exhaustive overviews and

⁴¹ C. Archer, *International Organizations* (1992), at 27.

⁴² K.-U. Schrogl, *Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011*, 60 ZLW 93 (2011), at 93.

comprehensive analyses on a variety of topics; questions of procedure and organization could have been easily handled by this experienced organ.⁴³

3.3.1.1 Membership

The most obvious weak spot of the Committee is its large membership. It is true that more and more States are getting active in outer space and, thus, would like to be represented in COPUOS. Essentially, membership of COPUOS mirrors the United Nations membership as a whole, having countries from all regions of the world and countries in every stage of development.⁴⁴ It has been shown earlier that COPUOS was most productive when it had twenty-eight members. Without doubt, the number of members was not the sole or the main reason behind the Committee's success, but it should not be disregarded as completely irrelevant. Quite prosaically, a large number of members makes organizational and procedural issues more complicated; a crowd of eighty-three diplomats is not easy to manage. It was also noted that in the 1960s and 1970s the Committee's success, at least in part, was attributed to close personal relations between the States' representatives, who had known each other for years and had come to understand and respect each other.⁴⁵ While one can have personal relations with twenty people, with eighty it will take a lot of time only to get acquainted.

It is true, though, that large groups are beneficial in regulatory frameworks, when there is no right answer, and the group is searching for the best one. Centuries-long history of parliamentary institutions is the vocal proof. But the bigger the group, the slower it works, the more there are ways in which the process of group decision-making can go wrong, and, finally, without good organization, a decision-making group can fail badly.⁴⁶ Here the analogy to a national legislature is helpful: while it is required that it has enough members to be representative, it has significant problems of organization, which are handled through parliamentary procedures, including most importantly voting rules. Thus, there is a choice to make: either you have a larger group with excellent organization and precise voting rules, or you

⁴³ See e.g., Preparations for the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) by the Advisory Committee fir UNISPACE III, A/AC.105/685. It was prepared by the UNISPACE III Secretariat, whose functions were performed by the UN Office for Outer Space Affairs in accordance with the UNGA Resolution 51/123 of 13 December 1996.

⁴⁴ Cf., S.N. Hosenball, The United Nations Committee on the Peaceful Uses of Outer Space: Past Accomplishments and Future Challenges, 7 J. Space L. 95 (1979), at 95.

⁴⁵ Cf., F. Lyall and P. B. Larsen, Space law: A Treatise (2009), at 21-22.

⁴⁶ Cf., C. Pavitt, Small Group Communication: A Theoretical Approach (1998), at 54-55.

have a smaller group with a more relaxed organizational procedure, and here a consensual voting might prove very efficient.

COPUOS has adopted and effectively used a consensus procedure when it included twenty-eight members. As the membership grew, however, the procedure has not been changed or adapted to new circumstances. Today COPUOS has a membership more comparable to that of national legislatures; but hardly any national legislature works using a consensus voting procedure.

Further, the COPUOS composition presupposes a limited number of participants. The two Subcommittees were created to establish "a dialogue between law, science and technology at a crucial point of the development of all of them, a dialogue so essential in many other spheres of international relations. It was clear that these two disciplines were inseparable and had to evolve together to ensure that space activities continue to serve the interest of all States and humanity as a whole."⁴⁷ But at the same time no procedure of communication or coordination between the two Subcommittees had been formally established; the Main Committee was and remains the only cohesive element. Nevertheless, it did not preclude COPUOS and the Subcommittees from drafting five space treaties, all of which required a combination of legal and scientific expertise.

In some instances, it has been noted, informal 'hallway discussions' are more important than those taking place during the session.⁴⁸ While that might not at all be true for COPUOS circa the 1970s, informal conversations are always a part of the process, a part of coordination, a part of the dialogue between representatives, organs or organizations. The limited number of members, thereby, provided members of the Committee more opportunities for such informal discussions, whereas informal discussions among eighty-plus members seem more unlikely. And in this sense communication between the two Subcommittees also becomes more cumbersome on an informal level, and complicated on the formal one.

The Committee, being a specialized body of the United Nations General Assembly, might have benefitted from a more compact membership. With all due respect, participation of representatives of Sierra Leon or Chad or Niger, which each have only one Intelsat satellite functioning over their territory,⁴⁹ cannot be considered crucial. While the records of the Outer

⁴⁷ N. Jasentuliyana, International Space Law and the United Nations (1999), at 24-25.

⁴⁸ Cf., J. Kaufmann, Conference Diplomacy: An Introductory Analysis (1988), at 52-53.

⁴⁹ For more information *see*, the Central Intelligence Agency, the World Factbook, https://www.cia.gov/library/publications/the-world-factbook/wfbExt/region_afr.html.

Space Treaty deliberations bear witness to the fact that among the members of the Legal Subcommittee the representatives of States not engaged in space activities played a very active part and put forward many constructive proposals eventually incorporated into the final text,⁵⁰ such recollections should be put into context.

That period was dramatically different from the current circumstances in at least two respects. First, today the general principles of outer space law celebrate their golden jubilee. The body of international space law, while far from being comprehensive, has created a firm legal foundation for further development of the legal regime and advancement of outer space exploration and use. Second, the geopolitical situation has changed dramatically. In the early years of the space era basically only two States were actively engaged in exploration and use of outer space, leaving other States under pressure to secure a legal regime that would guard their future interest in outer space exploration and use without any opportunity to influence development of space law apart from that within the COPUOS framework. Being excluded from the practice of outer space exploitation, regulatory and political leverage was the only option. So it came as no surprise that States other than the two 'space superpowers' were eager to be a part of COPUOS and of a law-making process, thereby, guaranteeing their future 'place in the sun'.

Nowadays, more and more States are being engaged in space activities; private companies from all over the world see the doors open to their entrepreneurial skills and zeal for exploration of outer space, and the threat of two superpowers having the whole outer space to themselves no longer exists. Basically, this means that the majority of States are interested in effective legal regime of outer space, and this group will only continue growing.⁵¹ That, however, does not necessarily mean that the Committee should continue growing as well. A representative, rotating membership would allow for an adequate embodiment of interests that are attributable to the whole group of States already active in space and those exploring prospects of space activities. In other words, the growing number of States with interests in space exploration and use, which presumably at some point would include all States, can be effectively represented by a smaller group without a threat of inadequate representation of one or more

⁵⁰ See, M. Lachs, *The Law of Outer Space: An Experience in Contemporary Law-Making* (2010), at 130.
⁵¹ COPUOS documents and scholarly works, however, are not at all consistent with respect to outlining COPUOS functions and its role in legal regulation. The Space Benefit Declaration, for example, characterized COPUOS "as a forum for the exchange of information on national and international activities in the field of international cooperation." (A/RES/51/122, December 13, 1996, para. 7) If such a view of COPUOS role is accepted, then a numerous COPUOS membership seems unnecessary and unjustified. As noted above, the wording of the UNGA Resolution, establishing COPUOS mandate is somewhat ambiguous and is open to varying interpretations.

groups or interests. A representative COPUOS subject to 'checks and balances' provided by the General Assembly might prove effective.

Members of the European Space Agency often entrust communication of their views to one designated State, Ecuador often makes statements on behalf of the Group of Latin American and Caribbean States and Kenya occasionally represents the Group of African States; so the possibility of rotating participation of just one member of these groups in Committee sessions might also be put up for consideration in the effort of reducing the number of COPUOS members. Moreover, COPUOS is not a plenary organ akin to the General Assembly, which is designed to represent all States and provide an equal opportunity to vote; it is a specialized Committee, which has a specific, albeit not especially narrow, mandate and is intended to fulfill preparatory – research and drafting – functions in order to pass the result to the plenary organ for decision; and at that point participation of each and every State becomes essential.

The International Civil Aviation Organization is an example to the point. Every State has a keen interest in effective and orderly regulation of civil aviation, and the Organization's membership of 191 States reflects this interest. Not the Organization's Assembly, however, is responsible for drafting and adoption of International Standards and Recommended Practices incorporated as Annexes to the Chicago Convention. The Council, an organ comprised of thirty-six States elected by the Assembly for a three-year term is charged with drafting Standards and Recommended Practices, which essentially define the civil aviation international legal regime.⁵² The Council represents three groups of States: States of chief importance in air transport; States which make the largest contribution to the provision of facilities for international civil air navigation; and States ensuring geographic representation. Such a composition guarantees that, on the one hand, the most influential States have their votes in the Council, and on the other, that the principle of geographic representation is followed, and at the same time the organ's membership is not too numerous.⁵³ The Council is responsible to the Assembly, it submits annual reports to the Assembly and carries out the directions of the Assembly.⁵⁴

⁵² Convention on Civil Aviation, signed December 7, 1944; entered into force April 4, 1947, 15 U.N.T.S. 295. Article 54 in relevant part states: "The Council shall: ... (l) Adopt, in accordance wit the provisions of Chapter VI of this Convention, international standards and recommended practices; for convenience, designate them as Annexes to this Convention; and notify all contracting States of the action taken."

⁵³ It should be noted, though, that sociology traditionally recognizes a group of 5 (or 4.6 to be precise) as the most optimal number of group members, and it has been proved that with the increase of the number of members both the individual members' satisfaction and the effectiveness of the group dropped. The so-called Ringelmann effect confirms that adding more people to the group leads to rise of the total force of the group, but the average force

General Assembly Resolution 1472 (XIV) specifically requested "the Committee to submit reports on its activities to the subsequent sessions of the General Assembly."⁵⁵ Moreover, the Committee, unlike the International Civil Aviation Organization Council,⁵⁶ is not entitled to adopt any binding decisions; every drafted document is subject to the General Assembly endorsement and, in case of a legally binding treaty, ratification by States. Although the analogy between COPUOS and the International Civil Aviation Organization Council does not suggest that these two organs are substantively similar, the lesson to be learned is that even in the area where all States have a direct interest in proper regulation, development of regulatory documents does not necessarily require participation of all or even the majority of States; a representative organ elected by all member-States of the organization can competently perform these functions.

As has been noted above, in a large group a proper organization and particularly clear voting rules are essential for its effective work. Consensus is an effective method but it has its limits. COPUOS as it stands today has two features – a large number of members and a consensus voting procedure – which are both effective on their own but cannot properly work together. So if the size of the Committee is preserved, it necessitates amendment of the voting rules and revival of the General Assembly rules of procedure, making voting possible.

This, though, is not the best option from both legal and organizational perspectives. From the legal point of view, consensual decision-making incentivizes dialogue between cooperating States; thus, it increases the chances of adoption of a decision satisfactory to all parties concerned and so strengthens the chances that the rule of law would be followed in a good faith manner by a majority of States. From the organizational point of view, consensus has always been a keystone of the Committee's work. Achievement of consensus on texts of all outer space treaties has been a Committee's distinctive feature and a reason for pride. Abolishment of the consensus voting procedure would mean abolishment of the most praised tradition of this organ, and would likely have detrimental consequences for the spirit of cooperation. After all, any

⁵⁴ Art. 50, 54 of the Convention on Civil Aviation.

exerted by each group member declines. For more information *see*, J.S. Mueller, *Why individuals in larger teams perform worse*, Organizational Behavior and Human Decision Processes (2011).

⁵⁵ General Assembly Resolution 1472(XIV), *International Co-operation in the Peaceful Uses of Outer Space*, RES 1472 (XIV) (12 December 1959), para. 2.

⁵⁶ Here the reference is to the Council's authority to adopt legally binding international standards pursuant to provisions of Article 12 of the Chicago Convention. Other types of international standards and recommended practices adopted as Annexes to the Chicago Convention are not considered legally binding in the strict legal sense. *See*, infra, at 358-359.

voting rule always leads to obvious winners and obvious losers, and that is not a constructive distinction in international relations.

3.3.1.2 Subcommittees

The second institutional weak point of COPUOS is communication, or lack thereof, between the two Subcommittees. In 1962, with the creation of the two Subcommittees no procedure for their coordination was established, and, as the Committee matured, their separateness has been preserved. In the mid 1980s the Subcommittees were praised as an effective mechanism within COPUOS that "have provided an excellent framework for accomplishment of their delicate tasks."⁵⁷ Nowadays the situation has changed. The two Subcommittees "are currently more or less islands in the UNCOPUOS setting. They do not interact with each other, even though this might be necessary, and they are not really guided by the Main Committee."⁵⁸ If COPUOS is to undertake a transformation to revive its status as the prominent international space forum, the division of work between the two Subcommittees, which were established to promote dialogue between law and science, might prove to be a barrier too high to overcome.

One option is to abrogate the division of the Committee's work altogether and concentrate all activities within the Main Committee. Since both Subcommittees and the Main Committee have the same membership it will not affect States' participation in COPUOS activities. Periods formerly allocated to Subcommittees' sessions may be added to the Main Committee's sessions' duration, resulting in six weeks of continuous work. Examination of specific topics might be organized using *ad hoc* Working Groups established by the Main Committee and reporting to each Committee's session until completion of their respective work plans.⁵⁹

There is one problem in this scenario. Abolishment of the Subcommittees does not mean that collaboration between scientists and lawyers can also be abolished; quite to the contrary, the main idea is to promote closer cooperation and communication between the specialists both during the Main Committee sessions and the Working Group meetings. But at this point it is hard

⁵⁷ E.R.C. van Bogaert, Aspects of Space Law (1986), at 264.

 ⁵⁸ K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 101.
 ⁵⁹ Id.

to imagine how sessions of the Main Committee would look like: each State would have at least two representatives – one diplomat and one scientist, though States' delegations of course could be larger – what already amounts to an impressive one-hundred sixty-six participants. Organization of these meetings is not the primary concern: the Office for Outer Space Affairs has successfully organized UNISPACE-III, which saw over two thousand attendants. But the question of voting probably would cause some disturbances.

Today specialists in science and technology meet separately; they separately discuss issues pertaining to their areas of competence, and separately work toward Committee-wide consensus on issues of science and technology. The same is true for the Legal Subcommittee. But if the two bodies were merged, how would discussion and voting be arranged? For example, if the question of space traffic regulation is considered within the Committee, discussion of technical matters is inseparable form the legal ones. The questions of applicability of air law regime to suborbital flights are not purely legal since construction and design of two types of crafts should be taken into consideration. Simultaneous discussion of legal and scientific issues of the topic under consideration might not prove particularly constructive. The bottom line is that abrogation of the Subcommittees would necessarily trigger revision of the agenda, because if the agendas of the two Subcommittees were simply combined, the new agenda would have an unmanageable total of twenty items. Recalling the earlier discussion of States' reluctance to add new items on the agenda, a major reworking of the overall COPUOS agenda might prove to be a challenge.

The second option is preservation of the current structure of the Committee accompanied by establishment of formal procedures for the Subcommittees' communication. One way is to provide for triennial joint sessions of the two Subcommittees. In accordance with the new structure for the two Subcommittees proposed by Germany, a three-year period is generally allocated for multiyear work plans; hence, subject to certain concurrency in Subcommittees' work, triennial joint meetings would serve a helpful tool in ensuring compatibility of their results and coordination of future work plans.

Another way, though not necessarily excluding the first one, is to establish Working Groups on issues under consideration in both Subcommittees. For example, the 'Space Debris' agenda item in the Scientific and Technical Subcommittee and the Legal Subcommittee agenda

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item 'General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee' can be easily merged and transformed into a joint Working Group on space debris. Some agenda items, by contrast, are clearly either legal or technical; for example, discussion of the item 'Status and application of the five United Nations treaties on outer space' within a joint Working Group or a joint session would hardly prove worthwhile.

Therefore, a narrowly tailored approach is necessary when reassessing coordination of the Subcommittees' activities, discerning the ones requiring collaborative effort of both Subcommittees and those better off when considered within the respective Subcommittee. By and large, both the elimination of the Subcommittees and their reorganization are viable alternatives to the current state of 'island-like' work of the Subcommittees and the Main Committee. Both options would require thorough planning and attention to details, particularly in procedural matters; and both options, if properly executed, are capable of filling the communicational gap within the COPUOS structure and enhance its overall productivity. Consideration of such topics as space traffic management, suborbital flights and space debris mitigation would undoubtedly benefit from combination of efforts of the two Subcommittees.

3.3.1.3 State-Centricity

Finally, it would be useful to reconsider COPUOS State-centricity. A few preliminary remarks should be made. First, the Committee was created as a subsidiary body of the General Assembly, and so obtained not only a political but also a State-focused character. Being an intergovernmental entity, COPUOS should preserve its integrity and abstain from blanket invitation of all interested parties, including nongovernmental entities, to participate in its sessions. Second, intergovernmental and nongovernmental entities have participated in COPUOS sessions since 1962 in the status of observer, although the private sector has never been granted access to the Committee. Third, the era of "government-focused, politico-military" space activities has long passed,⁶⁰ and space applications have become not only a profitable business,

⁶⁰ F.G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 106.

but also an important tool for international organizations, including those in the United Nations system, in fulfilling their goals.⁶¹

With these remarks in mind, it is suggested that COPUOS would benefit from inclusion of intergovernmental and nongovernmental entities into its work. This proposal is two-fold: on the one hand, it is advocated that COPUOS acquires a role of 'the space center of the United Nations' coordinating, or at least, registering space-related activities of all institutions within the United Nations system; and on the other, invitation of representatives of the private sector would add another point of view to the discussion.

The Legal Subcommittee's agenda item 'Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union' unequivocally confirms interdependence and interconnectedness of COPUOS activities with those of the United Nations specialized agencies.⁶² The goal of the Committee in this regard should be to focus on preservation of the international space regime consistency in the light of the activities and internal documents of respective international organizations.

This is not to suggest that COPUOS should serve a 'guardian' of space law stability, which is by itself a utopian goal. Nor a broad supervisory role of the Committee, including support and guidance of space applications in the United Nations institutions, is advocated.⁶³ Currently the Committee has more pressing internal issues, particularly the need to enhance inter-State cooperation to ensure the entity's relevance for the years to come. Moreover, COPUOS does not possess the necessary institutional structure and uninterrupted permanent character of work that would be desirable to perform supervisory functions. Rather, COPUOS should become the 'point of reference' that is timely informed of all regulatory and practical activities within the United Nations system. This would ensure COPUOS's awareness of the

⁶¹ Cf., K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 99.

⁶² The relevant Scientific and Technical Subcommittee agenda item is entitled 'Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union'.

⁶³ Cf., K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 100.

latest trends and ultimately would facilitate carrying out one of the contemporary Committee's tasks, namely assessment of the five United Nations space treaties, in a more effective way taking into consideration practice of both States and international organizations.

Inclusion of the private sector is another element in shifting the COPUOS exclusive focus from State activities in outer space. Preservation of COPUOS's integrity as an intergovernmental entity is of utmost importance; hence, participation of commercial entities in Committee's sessions should have certain restrictions. First, a status of commercial entities should be decided; whether it would be a status of observer or any other status, the choice must be satisfactory to all States. Second, commercial entities' participation should be authorized on a case-by-case basis and might be done as a one-time concession for a specific entity, or as an open-ended invitation to all interested entities, possibly meeting certain criteria, to participate in a particular session. Third, it is suggested that initially participation of the private sector should be limited to the sessions of the Scientific and Technical Subcommittee.

Compliance with these parameters would, on the one hand, ensure that the primary role of States is preserved, and, on the other, ensure that the matter of private sector participation is approached in a cautious manner, thereby providing States sufficient control over who and when is allowed to attend COPUOS sessions. The proposal to at first open only sessions of the Scientific and Technical Subcommittee is dictated by two reasons: first, presence of the private sector at these sessions would be less contentious due to the nature of subjects under consideration, as opposed to the Legal Subcommittee where delicate political issues are more likely to arise; and second, the Subcommittee's agenda includes issues like remote sensing, disaster management support, navigation satellite systems and others, where nowadays private sector's expertise would be most valuable. Overall, even with the enumerated limitations, which can be eliminated as the practice of commercial entities participation becomes more common and its benefits become more visible, occasional participation of the private sector would add a practitioner's perspective to the discussion, hopefully steering COPUOS toward practically feasible and thoroughly deliberated decisions.

By and large, introduction of the three proposed changes into the COPUOS institutional system would create a favorable milieu for substantive changes, whether by way of addition of new topics for consideration, including the most prominent issues relating to space activities commercialization, or by way of focusing on development of widely supported documents, even

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if non-binding ones, on the issues currently on the COPUOS agenda. For example, during the 2015 session of the Scientific and Technical Subcommittee some delegations "expressed the view that it was necessary to continue improving the Space Debris Mitigation Guidelines of the Committee and that the Scientific and Technical Subcommittee and the Legal Subcommittee should cooperate with the aim of developing legally binding rules relating to space debris."⁶⁴ A more compact Committee armed with necessary methods of coordination between the Subcommittees and with information provided by States, international organizations and the private sector might well succeed in drafting new, more stringent and specific rules on space debris mitigation. These changes, however, are not likely to persuade States that binding treaties are indeed necessary.

3.3.2 Future Role of COPUOS

Turning to this part of the analysis, first, the purpose, or ambition behind the creation of COPUOS should be understood. One author suggested: "Looking at the founding resolution, one might easily understand that the main tasks of the Committee were not legal or institutional. In fact, it was established in order to consider the activities and resources of the United Nations; the specialized agencies and other international bodies relations to the peaceful uses of outer space; international cooperation; and, programs in the field that could appropriately be undertaken under United Nations auspices and within its organizational arrangements to facilitate international space cooperation. From this perspective, UNCOPUOS has been the focal point for all space-related cooperative programs furthered by the United Nations since the early 1960s."⁶⁵

Indeed, a fairly unspecific wording of resolutions drew a very broad competence for the newly created organ that might well cover matters of coordination within the United Nations system. Supervisory activities, however, have never been a centerpiece of COPUOS activities.⁶⁶ Creation of the UN-SPIDER Program is rather an exception than a rule. Nowadays, there is no

⁶⁴ Report of the Scientific and Technical Subcommittee on its fifty-second session, held in Vienna from 2 to 13 February 2015, A/AC.105/1088, para. 96.

⁶⁵ S. Marchisio, *The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space*, 31 J. Space L. 219 (2005), at 222.

⁶⁶ E.g. *see*, Каменецкая Е.П. Космос и международные организации: международно-правовые проблемы [*Outer Space and International Organizations: International Legal Problems*]. М., 1980. С. 115 (COPUOS can hardly fulfill functions of the permanent operative world center of international cooperation in exploration and use of outer space, because even today, when there is a relatively small number of international space organizations and UN organs empowered with dealing with outer space exploration issues, occasionally it might struggle to fulfill its purposes.).

indication that COPUOS is ready or willing to adjust its predominantly regulation-oriented work. The exceptional success of COPUOS in negotiating and drafting five United Nations treaties affirmed its primarily regulatory mission.

The 1472 (XIV) resolution included the language mandating the Committee to consider "legal problems which may arise in the carrying out of programs to explore outer space," unequivocally including a regulatory legal role within the COPUOS mandate, albeit putting the respective language at the very end of the Resolution.⁶⁷ In this area the Committee has seen great successes for which it will be praised for the years to come; but currently its regulatory function has come to a standstill. It has been asserted that nowadays the COPUOS's main focus in the legal regulatory area of its activities is the assessment of the existing legal regimes and the formulation of non-binding documents that are based upon the rights and obligations as provided by the treaties already in force.⁶⁸ It is suggested that these two tasks, strictly speaking, are neither regulatory, nor legal in nature.

The task of 'assessment of the existing legal regimes' does not bear regulatory meaning since an assessment would not include the revision of existing legal norms or the development of authoritative interpretations to the space treaties; rather, the task would be limited to "the analysis of problems and shortcomings with respect to the *application* of existing rules of space law."⁶⁹ It, undoubtedly, is a helpful instrument to facilitate exchange of information and share best practices. But neither COPUOS has the power to provide authoritative interpretations of existing texts, nor is it empowered to 'create' new law relying on the Anglo-Saxon concept of precedent. It is also doubtful that 'assessments' are supposed to be concluded by a set of guidelines summarizing best practices and offered to States to be followed on a voluntary basis.⁷⁰ The only way this task might have substantive regulatory value is by way of creation of a compilation of State practice that can be used to establish norms of international custom. Such a

⁶⁷ A disclaimed should be made that the term 'regulatory' as applied to activities, functions, or role of COPUOS here is understood narrowly as entailing COPUOS's authority to draft legally binding and non-binding documents requiring further endorsement by the General Assembly and, in case of legally binding documents, ratification by States. *Supra*, para. 3.2.5.

⁶⁸ See, S. Marchisio, *The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space*, 31 J. Space L. 219 (2005), at 237.

⁶⁹ Id.

⁷⁰ E.g., a draft resolution Application of the Concept if the 'Launching State', G.A. Res. 59/155 (Dec. 10, 2004), reminded that it did not constitute an authoritative interpretation of, or proposed amendments to the Liability and Registration Convention, and mainly recommended that States consider enacting national legislation on authorization and supervision of space activities by private entities and the conclusion of agreements with respect to joint launches.

compilation would have to cover the general practice and identify the subjective element – *opinio juris* – in order to facilitate establishment of customary norms.⁷¹

The other question in this regard is: what actions can the Committee take, should its assessment conclude that the existing legal regimes are unsatisfactory? Based on the contemporary goals of COPUOS as outlined above, there is nothing that can be done, legally speaking. Even formulation of non-binding documents is supposed to be based on already existing rights and obligations enunciated in the outer space treaties; so a 'soft law' solution to address the existing regimes' imperfections is not possible. Therefore, the second line of COPUOS activities would also have minimal effect on the regulatory landscape both due to subject-matter limitations and due to the legally non-binding force of any adopted documents. Today the most pressing issues are of such nature that they require more than a recommendation containing broad principles. For example, the issue of space traffic regulation can hardly be effectively dealt with using General Assembly resolutions, which are the culmination of the regulatory COPUOS process, for many reasons, including their political orientation, imprecision of formulations and lack of collaboration in the drafting process with other relevant organizations, including the International Civil Aviation Organization.

By and large, the legal regulatory role of COPUOS should be reinforced for the Committee to remain a prominent space forum. It has been emphasized that in the years to come COPUOS has to take up the issues requiring its legislative function based on outer space law, halting attempts of other institutions to independently develop international law, which touch upon the status of outer space and the principles of its use.⁷² Not all, however, share this sentiment, and an opinion favoring a limited regulatory role of COPUOS was also voiced.⁷³ It has been noted that "the idea of drafting by both COPUOS sub-committees on an ordinary functional basis of international recommendations and standards is certainly fascinating, but would require profound changes from the institutional point of view."⁷⁴

⁷¹ This topic is currently under consideration in the United Nations International Law Commission. Two basic elements of international custom are extensively discussed in the Second Report of Special Rapporteur Sir Michael Wood. See, International Law Commission, sixty-sixth session, Second Report on Identification of Customary International Law (2014), A.CN.4/672.

⁷² See, K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 101.

 ⁷³ Cf., S. Marchisio, The Evolutionary Stages of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space, 31 J. Space L. 219 (2005), at 241-42.
 ⁷⁴ Id.

Overall, there is a general agreement that the revival of the prominent role of COPUOS in space activities regulation would have been desirable. At the same time, there is also a general understanding that the Committee in the way it is structured and is functioning today cannot undertake ambitious tasks and satisfactorily perform them. There might be a multitude of opinions as to the most appropriate ways of COPUOS's transformation to meet today's needs. Institutionally, the Committee would have benefitted from a smaller number of members, closer monitoring of Committee's structure and utilization of appropriate procedures to ensure procedural adequacy and efficiency, and involvement of governmental and nongovernmental entities, including private sector actors, preferably in the status of observer granted on a case-by-case basis. It is suggested that these institutional changes might significantly affect the substance of COPUOS work by adding certain flexibility and mobility in inter-Committee relations, ensuring adequacy of adopted procedures, and adding a new perspective to traditionally State-centered discussions, which might indeed ease finding that compromise that would satisfy all parties concerned and would provide a much-needed regulatory framework for the swiftly developing space activities.

A lot has been said about modern COPUOS weaknesses, and it is time to point at its strengths. First and foremost, it is an intergovernmental body offering States an opportunity to discuss in a controlled setting any issue pertaining to exploration and use of outer space. That feature gives COPUOS a unique opportunity to engage States in a dialogue about the most pressing issues and the issues that only a handful of States consider important. The development of such a dialogue is a whole different story, but the opportunity is there, and it is the States' responsibility to engage other members of the Committee in the discussion they are initiating.

Second, COPUOS's intergovernmental nature is both its weakness and its strength. On the one hand, it limits the topics the Committee might take up for the discussion, but on the other, it provides an opportunity to discuss international legal issues in their purity, without putting them into commercialization, or licensing, or intellectual property rights contexts. Acknowledging interconnectedness of all these issues in a modern space industry, there is still a line, which though having become very thin and almost transparent over the years, is still there, that delimits international public law from international private law, or more precisely private law in the international context. Hence, there should be a forum concerned primarily with the

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public element of international space law, ensuring its consistency for the sake of building an international private space law regime on a stable public law foundation.

Third, over the years COPUOS proved that it is capable to develop and to adapt to new circumstances. As discussed above, the Committee is not an example of an entity exhibiting an immediate reaction to new conditions; in some areas it proved to be completely stagnant. Nevertheless, the very fact that is has been changing throughout over fifty years of its existence, that States continuously participate in its sessions, that the documents it has drafted have mostly been greeted with wide support and appreciation; all are suggestive of the COPUOS's ability to maneuver in the ever-changing international environment. With some help and a grain of States' initiatives COPUOS might well transform once again to retain its important position in the system of international space cooperation.

COPUOS was designed to be the center of international cooperation in exploration and use of outer space for peaceful purposes,⁷⁵ and although its role has not remained unchanged over the years, it is still a unique institutional system functioning on an intergovernmental level supported by the United Nations machinery. It is suggested that there are several areas that can be effectively addressed by COPUOS, preferably a COPUOS that has already undergone the necessary transformation. In the realm of practical applications, the Committee might successfully deal with the issue of space debris mitigation. While it has already achieved certain results in this area by way of adoption of the 2007 Guidelines and, hence, sees itself as a leader,⁷⁶ concurrence among States regarding the need to address this issue in a comprehensive manner also exists, as suggested by the European Union used to be considered a step forward in dealing with the problem of space debris, but the Code has lost momentum and as of writing the process of its drafting and adoption has come to a standstill.⁷⁸ And that gives COPUOS a chance to seize the initiative and become the central forum for addressing this pressing issue.

⁷⁵ *Cf.*, Каменецкая Е.П. Космос и международные организации: международно-правовые проблемы [*Outer Space and International Organizations: International Legal Problems*]. М., 1980. С. 60.

⁷⁶ See, K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 98.

⁷⁷ E.g., Report of the Committee on the Peaceful Uses of Outer Space, Fifty-seventh session (11-20 June 2014), A/69/20, para. 123.

⁷⁸ *Cf.*, G. Irsten, *Code of Conduct for Outer Space Activities ends*, Reaching Critical Will (May, 2014) http://reachingcriticalwill.org/news/latest-news/8907-the-consultation-process-for-the-international-code-of-conduct-for-outer-space-activities-ends.

In the regulatory field, two items of the Legal Subcommittee's agenda could be most effectively addressed within the COPUOS framework. The item 'Status and application of the five United Nations treaties on outer space' should include COPUOS activities targeted at the universal acceptance and compliance with the outer space treaties, and provide an overview of State practice in implementation of these treaties. The latter element would allow identifying two elements of an international customary norm, and also would direct toward the matters at the center of States' activities and those causing most legal and practical controversies. In addressing the item 'Review of international mechanisms for cooperation in the peaceful exploration and use of outer space' COPUOS could play an important role in clarifying the different approaches to cooperation in space activities and, thereby, facilitate international space cooperation by way of providing a catalogue of different ways and means of cooperation, where each State would find the method most appropriate for its project, level of involvement and willingness to compromise.

Other issues might be added to this list subject to member-States' readiness to consider them in a constructive way, preferably leading to drafting of a document that could be adopted by consensus. Generally, nowadays the primary role of COPUOS is to propose visions on law. "Space law today is built largely outside COPUOS, which is not always informed or consulted. COPUOS's role should be set more upstream, to be creative, imaginative, to anticipate legal questions and to offer thoughts that require debates, particularly for achieving consensus on texts which could not enter into force or would attract few Parties."⁷⁹

In a more distant perspective the Committee might also consider transforming its institutional system to also undertake the supervisory role within the United Nations system. Even more ambitious plans can be drawn for the COPUOS development, but ultimately it's the member-States' choice whether to reinforce the Committee's mandate in the changing circumstances or to restrict COPUOS performance to its common tasks.

In the Declaration on the Fiftieth Anniversary of Human Space Flight and the Fiftieth Anniversary of the Committee on the Peaceful Uses of Outer Space it was recognized that the Committee had for the past fifty years served as a unique platform at the global level for international cooperation in space activities. Further it was acknowledged that the Committee

⁷⁹ G. Lafferranderie, "Basic Principles Governing the Use of Outer Space in Future Perspective," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 21.

and its subsidiary bodies stood at the forefront in bringing the world together in using space science and technology to preserve the Earth and the space environment and ensuring the future of human civilization.⁸⁰

Even if time proves that the role of COPUOS has already been mostly completed, and if the future does not bring the breath of fresh air to revive the Committee and its role in development of international space law, it will nevertheless retain its celebrated place in the history of space law. "It was with the establishment of UNCOPUOS that states themselves, the prime makers and breakers of international law, acknowledged that establishment of a coherent legal regime for outer space was fundamental enough to require attention. Moreover, it signaled that a considerable measure of coordinated and cooperative effort, rather than individual sovereign action, was considered justified and required. Thus, the mere establishment and continued existence of UNCOPUOS symbolized, even personified, the special character of space as a legal area."⁸¹

⁸⁰ UNGA Res. A/RES/66/71, Annex, para. 8, 9 December 2011.

⁸¹ F. von der Dunk, "The Undeniably Necessary Cradle – Out of Principle and Ultimately Out of Sense," in G. Lafferranderie and D. Crowther (eds.), Outlook on Space Law over the Next 30 Years (1997), at 401.

Chapter 4. UNISPACE Conferences

4.1 Overview

It was stated that neither the United States nor the Soviet Union, the 'space superpowers', really wanted the first UNISPACE Conference in 1968 or the second Conference – UNISPACE 82 – to take place.¹ "Third World pressure dictated otherwise, however, and the United States as well as U.S.S.R. participated in both."² To make this account up-to-date it should be noted that the two countries participated in all three UNISPACE conferences, including the latest one held in 1999.

In this chapter UNISPACE Conferences will be analyzed. The first two Conferences will be reviewed briefly, while the analysis will focus on UNISPACE III. This approach is preferred because only the latest Conference reflects the modern state of international space cooperation. The first two Conferences were convened when the current legal regime, namely the four core treaties and the four sets of principles,³ had not yet been established. The 1996 "Space Benefit" Declaration⁴ marked the elimination or at least smoothing of the North-South conflict lines,⁵ summarized the content of the principle of cooperation, confirming that international cooperation should not be forced onto countries, thereby alleviating the tensions surrounding the scope of cooperation required in exploration and use of outer space.⁶ Additionally, the structure and the

¹ See, The second U.N. Conference on the Peaceful Uses of Outer Space (UNISPACE 1982), August 9-21, 1982: report submitted to the Committee on Foreign Affairs, U.S. House of Representatives (1983), at 20. ² Id.

³ The Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, UNGA Res. 37/92 of 10 December 1982; The Principles Relating to Remote Sensing of the Earth from Outer Space, UNGA Res. 41/65 of 3 December 1986; The Principles Relevant to the Use of Nuclear Power Sources in Outer Space, UNGA Res. 47/68 of 14 December 1992; The 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, UNGA Res. 51/122 of 13 December 1996.

⁴ 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, GA res. 51/122, UN Doc. A/AC.105/572/Rev. 1 (1996).

⁵ See, M. Benkö, K.-U. Schrogl, Space Law at UNISPACE III: Achievements and Perspectives, 49 ZLW (2000), at 74-75.

⁶ For the discussion about the arguments surrounding negotiation and drafting of the Space Benefit Declaration and summary of views of developing and developed nations *see*, M. Benkö and K.-U. Schrogl (eds.), *International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space* (1993); M. Benkö and K.-U. Schrogl, *Space Law at UNISPACE III: Achievements and Perspectives*, 49 ZLW (2000).

economy of outer space exploration and use in the 1980s, not to mention the late 1960s, differed significantly from its modern version where commercialization has become the most notable trend.

4.1.1 UNISPACE I

As early as 1959 the General Assembly approved the principle "of convocation under the auspices of the United Nations of an international scientific conference for the exchange of experience in the peaceful uses of outer space."⁷ The Committee on Peaceful Uses of Outer Space in its 1964 report stated that it decided "to set up a working group composed of all the members of the Committee to examine the desirability, organization and objectives of an international conference or meeting to be held in 1967 on the exploration and peaceful uses of outer space, as well as to make recommendations on the question of the participation in the said meeting of the appropriate international organizations."⁸ In its 1967 Report the Committee proposed the conference to be held in Vienna from 14 to 27 August 1968. It was reported that the Committee discussed the organization, agenda and participation of the Conference.⁹

Two primary objectives of this conference were formulated as follows. The first objective was to undertake an examination of the practical benefits to be derived from space research and exploration on the basis of technical and scientific achievements and the extent to which non-space powers, especially the developing countries, may enjoy these benefits, particularly in terms of education and development. The second objective was to engage in an examination of the opportunities available to non-space powers for international cooperation in space activities, taking into account the extent to which the United Nations may play a role.¹⁰

The Conference was held in Vienna in August 1968. The session of the COPUOS Scientific and Technical Subcommittee was in effect substituted by the Conference.¹¹ That was the first and the largest international space conference, and utilization of sophisticated United Nations administrative capacities ensured its proper organization.

⁷ C.W. Jenks, *Space Law* (1965), at 54.

⁸ Report of the Committee on the Peaceful Uses of Outer Space, General Assembly Official Records, 19th Session, A/5785 (1964).

⁹ See, Report of the Committee on the Peaceful Uses of Outer Space, General Assembly Official Records, 22nd Session, A/6804.Add.1 (1967).

¹⁰ See, Report of the Committee on the Peaceful Uses of Outer Space, General Assembly Official Records, 23rd Session, A/7285 (1968).

The results of the Conference were summarized in the Documentation on the United Nations Conference on the Exploration and Peaceful Uses of Outer Space appended to the 1968 COPUOS report. "Although this conference produced few tangible results, it generated two proposals that were carried out: one to create a United Nations Space Applications Program, which provides technical assistance to developing nations through workshops, seminars, and training, and second to establish working groups in COPUOS to study questions such as remote sensing, and direct broadcast satellites."¹² That being the case, however, even these modest results should be highly appraised taking into consideration that it was the first experience of convening an international space conference of such a grand scale, and the minimal involvement of States, all except for two, in outer space activities. What is even more important is that despite the profound differences of the Cold War era, both in economic and ideological spheres, States were able to get together for the discussion of one of the most acute issues.

4.1.2 UNISPACE 82

"The rapid progress of space exploration and technology that followed the 1968 Conference suggested to some that a second conference was necessary to exchange information and experience, and to assess the adequacy of institutional and operative means that were being used to realize the benefits of space technology."¹³ The proposal for a second conference was made by the COPUOS Scientific and Technical Subcommittee as early as 1974,¹⁴ and it took another four years for the United Nations General Assembly to agree to convene the next UNISPACE Conference.¹⁵ Again both the United States and the Soviet Union were not among the supporters of the next space conference.

The purpose of UNISPACE 82 was outlined in United Nations General Assembly resolution 34/67 of December 4, 1979. It recalled that the intervening period since the first UNISPACE Conference had seen rapid progress and growth in space exploration and development of space technology and its applications. In 1979 it was noted that while only few nations possessed the capability to launch equipment into outer space, 148 of the world's 157

 ¹² United States, Office of Technology Assessment, Congress, UNISPACE '82: a context for international cooperation and competition: a technical memorandum (1983), at 31.
 ¹³ Id.

¹⁴ See, United Nations, Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 9-21 August 1982, A/CONF.101/10.

¹⁵ See, UNGA Res. 33/16, November 10, 1978.

States either participated actively in outer space or shared directly in the benefits of space application.¹⁶ "The General Assembly considered that there was a need to assess these developments, to exchange information and experience on their present and potential impact and to assess the adequacy and effectiveness of institutional and cooperative means of realizing the benefits of space technology."¹⁷ Some States undertook attempts to include consideration of 'legal aspects' in the list of conference's goals, but this proposal was dropped. It was argued that addition of 'legal aspects' to the agenda "would change the character of the conference form a scientific and technically oriented meeting to one of political debate thus possibly frustrating the major purpose for which the conference was designed."¹⁸

The official US records summarizing results of UNISPACE 82 stated: "The Conference provided a timely opportunity for the United States and other space powers to exchange views on the state of space science and technology and its applications, and for developing countries to familiarize themselves with and better understand the often complex language of space."¹⁹ A clearer representation of the view taken by the United States in regard to the second Conference can be found in the official US objectives for UNISPACE 82: "To promote the image of the United States as No. 1 in space, to improve government-industry relations worldwide, and to limit damage to the official US position on space militarization, the geostationary orbit, access to remote sensing, and the UN Center for Outer Space Applications."²⁰ In the absence of reliable and open sources outlining official position of the Soviet Union delegation, it is still plausible to assume that the Soviet Union also resorted to the tactics of 'damage limitation', which is similarly likely to boil down to continuous assertion of the Soviet Union as No.1 in space and to limitation of interference with national military-related space activities. In such an atmosphere with two major players in the outer space exploration taking a defensive position, the second UNISPACE Conference was bound to produce minimal practical results.

UNISPACE 82 was held in Vienna from 9 to 21 August 1982. This time the Conference did not substitute for the Subcommittee's session, but instead was convened as a separate event in the Hofburg Palace.

¹⁶ See, D.D. Smith, Space Stations: International Law and Policy (1979), at 63-64.

¹⁷ *Id*. at 441.

¹⁸ S.N. Hosenball, *The United Nations Committee on the Peaceful Uses of Outer Space: Past Accomplishments and Future Challenges*, 7 J. Space L. 95 (1979), at 105.

¹⁹ The second U.N. Conference on the Peaceful Uses of Outer Space (UNISPACE 1982), August 9-21, 1982: report submitted to the Committee on Foreign Affairs, U.S. House of Representatives (1983), at 1. ²⁰ *Id.* at 2.

The summary of the Conference discussions strikes as a somewhat vague and unspecified enumeration of the latest developments in outer space science and technology, and of persisting unresolved issues followed by similarly indeterminate recommendations to work together toward their solution. Plenary sessions were devoted to 'general discussion' and to the most problematic questions of the geostationary orbit utilization and outer space militarization. With regard to the former it was acknowledged that the International Telecommunication Union was the appropriate forum for discussion, while it was noted that "the debates might affect the coming Plenipotentiary meeting." The latter issue was effectively removed from the agenda owing to the persistent US position that 'militarization' was essentially the wrong word – as military actions did not equal to non-peaceful actions. The US delegation insisted on transfer of the discussion to the Conference on Disarmament, where just recently the United States had blocked creation of the working group on outer space militarization issues.

Discussions in three Conference committees similarly did not produce a lot of results. The first committee charged with discussion of the state of space science and technology was not expected to produce more than an overview of the recent developments in the relevant area. The committee on applications of space science and technology, not being able to resolve the issue of the geostationary orbit utilization handed this agenda item to the Plenary. The remote sensing issue was discussed mostly as pertaining to meteorological and land observation. "Access to data was a major issue discussed at the Conference, and the report also stressed the importance of complementarity and compatibility of data systems to avoid redundant experiments and minimize costly changes of ground equipment."²¹

Within the third Conference committee working on the agenda item "International Cooperation and the Role of the United Nations", participants found a generally positive picture in assessing multilateral and bilateral cooperation. But it was also noted that more extensive cooperation was necessary in creating regionally or internationally owned systems for communications in various fields of space science; for assuring international availability of space-derived data; for coordination of national, regional and international systems; and for joint planning of scientific missions.²²

 ²¹ See, The second U.N. Conference on the Peaceful Uses of Outer Space (UNISPACE 1982), August 9-21, 1982: report submitted to the Committee on Foreign Affairs, U.S. House of Representatives (1983), at 14.
 ²² Id. at 15.

The main practical achievement of the Conference was expansion of the United Nations Space Applications Programme's mandate. The Programme translated the elements of its expanded mandate into operation activities in space science and technology, in particular for the benefit of developing countries. "During the period 1971-1997, the Programme organized: 143 workshops, training courses and meetings of experts, which benefited approximately 7500 participants. Following up on the recommendations of some of the workshops, the Programme focused on education and training and in particular in establishing regional centers for space science and technology education, affiliated with the United Nations, in each of the regions covered by the regional commissions."²³ As of 2014, the Programme has organized approximately three hundred training courses, workshops, seminars and conferences and has provided funding support for more that eighteen thousand participants, mainly from developing countries.²⁴

It is safe to conclude that UNISPACE 82 was a more robust, comprehensive and wellmanaged event compared to the first Conference that had been attended by a growing number of participants. Allocation of special time and place for the Conference and a thoughtful division of work into Plenary and three committees are the signs of a growing importance of the Conference. And even though it did not produce any results of long-term importance, it attained a significant political value and was seen as a meeting capable of influencing further discussions, even if not further development of the outer space legal regime.

4.1.3 UNISPACE III

By the end of the twentieth century it was decided to convene the next worldwide conference on peaceful uses of outer space. While the first two UNISPACE conferences should be appraised as important steps toward greater international cooperation and understanding, neither of them had produced long-standing results, or contributed anything to the international space law development owing to exclusion of this topic from the agendas of both conferences. By the end of the twentieth century the world political climate had changed thanks to the end of the Cold War and booming involvement of developing nations in international affairs, and

²³ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, at p. 24.

²⁴ See, UN Office for Outer Space Affairs, UN Programme on Space Applications, http://www.unoosa.org/pdf/publications/ST_SPACE_52_Rev1.pdf.

prospects of effective international cooperation were as real as ever. The next UNISPACE conference was called for. "There were two main arguments for this coming together: *primo*, the rules as we have them have been made about thirty years ago, and the question has been asked whether they should be modernized (or not); *secundo*, outer space affairs are on the threshold of privatization, and present-day rules do not envisage private parties as lawful actors in outer space."²⁵

During the 1992 COPUOS session the first proposal to convene a third UNISPACE Conference was made. Based on the advice of the Committee, the General Assembly in its resolution 47/67 of December 14, 1992 recommended that States might discuss the possibility of holding a third Conference during the next session of COPUOS. At the Committee's 1996 session the decision was made that UNISPACE III, open to all States members of the United Nations, should be convened at the United Nations Office at Vienna. The United Nations General Assembly in its resolution 52/56 of December 10, 1997 agreed that UNISPACE III would take place from 19 to 30 July 1999 as a special session of COPUOS.

The purpose of the Conference was to "review and highlight the significant advances of space science and technology that had taken place since 1982 with a view to promoting their greater use in particular by developing countries, in all areas of scientific, economic, social and cultural development."²⁶ A more specific set of Conference objectives was announced: promoting effective means of using space technology to assist in the solution of problems of regional or global significance; and strengthening the capabilities of Member States, in particular developing countries, to use the applications of space research for economic, social and cultural development. An attentive reader would notice that despite the great breadth of the goals of the Conference, despite inclusion of "all areas of scientific, economic, social and cultural development," which presumably covers almost any imaginable activity, not a word was spent on making space law a part of the discussion.

Work of the Conference was structured into Plenary sessions, two Committees, the Technical Forum and the Space Generation Forum. A comprehensive report on the results of UNISPACE III gives an impression that questions of science and technology were the focal point

²⁵ W. P. Heere, *Reports of Conferences: Vienna, Unispace III, 19-30 July 1999, 24 Air & Space L. 268 (1999), at 268.*

²⁶ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, at para. 55.

of the discussion, where great attention was paid to the equitable and sustainable utilization of geostationary orbit²⁷ and the need to work toward greater availability of remote sensing data due to its importance for a wide arrays of activities, including agriculture, mineral prospecting, water resource management, forestry and other environment-related activities.²⁸ Issues of greater inclusion of developing States in enjoyment of space technology benefits were the next recurring theme in participants' statements.²⁹ Voices were heard about the benefits stemming from international and particularly regional cooperation, and suggestions were made toward its promotion.³⁰

Only a thorough reading of the 157-page conference report allows spotting the scarce references to space law, while it is hard to believe that space law was indeed such an insignificant part of the discussion. During the general exchange of views it was noted that the Liability Convention dispute settlement mechanism had to be strengthened,³¹ and appreciation for the work of COPUOS in development of international treaties and principles that constituted core of international space law was expressed.³² The presentation of the results of deliberations of several preparatory meetings and a four-day workshop on Space Law in the Twenty First Century, prepared by the International Institute of Space Law, was proffered in the framework of the Technical Forum.³³ Additionally, two background papers were tabled, one on the Highlights in Space 1998: Progress in Space Science, Technology and Applications, International Cooperation and Space Law,³⁴ and the second one entitled "United Nations Treaties and Principles on Outer Space: A Commemorative Edition."³⁵ Hence, one might deduce that space law was indeed a part of the conference's deliberations, albeit intermingled with and somewhat overshadowed by the featured theme of space science and technology.

The Conference was concluded by adoption of the Vienna Declaration. It enumerated six major challenges that had to be addressed by the international community and further specified

²⁷ *Id.* at para. 473.

²⁸ *Id.* at para. 459.

²⁹ *Id.* at para. 462, 466-68.

³⁰ *Id.* at para. 456-67, 465, 470

³¹ *Id.* at para. 475.

³² *Id.* at para. 472.

³³ *Id.* at para. 549.

³⁴ Background paper Highlights in Space 1998: Progress in Space Science, Technology and Applications, International Cooperation and Space Law, A/CONF.184/BP/14.

³⁵ Background paper United Nations Treaties and Principles on Outer Space: A Commemorative Edition, A/CONF.184/BP/15.

thirty-three actions that should be taken in achievement of the global strategy. In most general terms the Declaration called for: improved utilization of space-based technologies in Earth observations and minimizing damages incurred by space activities; enhancing medical, educational, transportation and communications capabilities using space-related technologies and greater inclusion of space technologies in disaster prevention and relief; protection of space environment along with expansion of scientific knowledge of outer space, including orbit prediction and near-Earth objects monitoring; ensuring public awareness of the importance of space activities; strengthening the role of the United Nations system in outer space activities, with special emphasis on reaffirming the role of COPUOS and importance of acceding to the outer space treaties; and, finally, to promote international cooperation by way of inviting States and appropriate international organizations to participate on a voluntary basis in implementation of the Conference recommendations.³⁶ "Everything taken together, it can be said that Unispace III succeeded in stimulating good debates on the basis of both expert preparatory papers, and the presence of many of those space lawyers who know their job."³⁷

Based on the States' survey conducted by COPUOS and its Scientific and Technical Subcommittee from 1999 to 2001, the Committee created twelve initiative groups led by a volunteered State, or in some cases an international organization, in order to implement the measures acknowledged as paramount. Additionally, a separate agenda item designated as "Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)" has been included in the agenda of the Scientific and Technical Subcommittee, and has ever since been a part of its annual sessions.³⁸ UNISPACE III prompted an initiative and thus contributed to the creation of the International Charter "Space and Major Disasters", which is an international agreement aimed at providing space-based data and information in support of relief efforts during

³⁶ See, The Space Millennium: Vienna Declaration on Space and Human Development, in United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6.

³⁷ W. P. Heere, *Reports of Conferences: Vienna, Unispace III, 19-30 July 1999, 24 Air & Space L. 268 (1999), at 268.*

³⁸ At 2013 session the Subcommittee agreed that the agenda item on the implementation be renamed as "Space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda". United Nations, *Report of the Scientific and Technical Subcommittee on its fiftieth session, held in Vienna form 11 to 22 February 2013*, A/AC.105/1038.

emergencies caused by major disasters.³⁹ Today it unites fifteen space agencies and seven nongovernmental entities, and as of 2015 was activated to cover four hundred forty-seven disasters in over one hundred and twenty countries worldwide.⁴⁰ Although as such the International Charter is not the direct outcome of the Conference, UNISPACE III played an important role in spurring discussion on the issues of disaster prevention and relief, thus incentivizing the Canadian Space Agency and the European Space Agency to come up with this 'soft law' measure that nowadays has evolved into an effective cooperative system.

4.2 Six-Criteria Analysis

4.2.1 Membership/Participation

The participation criterion as applied to the international conferences category was described in Chapter 1 as: "Primarily States, but intergovernmental organizations and non-governmental entities might also become participants."

Seventy-eight States and thirteen international organizations attended the first UNISPACE Conference. UNISPACE 82 was taken seriously by both States and international organizations, what was evidenced by a growing participation. Representatives of ninety-four countries, eight United Nations specialized agencies, six United Nations programs and fifteen intergovernmental organizations attended the event. Additionally, a large number of concerned non-governmental organizations in consultative status with the United Nations Economic and Social Council were represented by observers. Notably, a committee of about 30 interested nongovernmental organizations was established to provide an opportunity for their representatives to participate in discussions and decisions concerning the future of the human race in space. That became the first occasion when non-governmental entities were invited to participate in an international space conference.

Although private entities were 'secluded' in a special committee separate from forums with States' and international organizations' participation, it was still a notable development. It

³⁹ Charter On Cooperation To Achieve The Coordinated Use Of Space Facilities In The Event Of Natural Or Technological Disasters, Rev.3 (25/4/2000).

⁴⁰ UN Office for Outer Space Affairs, *International Charter 'Space and Major Disasters': Toward Universal Access* (2012), http://www.unoosa.org/pdf/pres/stsc2013/tech-48E.pdf. The most up-to-date information on Charter activations is available at the official website of the International Charter "Space and Major Disasters" at www.disastercharter.org.

was a first hint indicating that commercial actors would play an increasingly important role in outer space exploitation. By the time of UNISPACE 82 a few international satellite organizations were already in place,⁴¹ thereby giving a reason to anticipate that in the near future commercial component would become an indispensable part of space activities. And though during this conference non-governmental observers were the minority and were not given an opportunity to take part in the inter-State discussions, the very fact of their presence was the signal that the era of the 1990s space commercialization was already at the threshold.

Over two thousand five hundred participants attended UNISPACE III, including representatives of one hundred States, twenty-nine international organizations, and a large number of representatives of national non-governmental organizations and space industries invited by their governments.⁴² Thus, in terms of participation the UNISPACE Conferences depict a classic international conference: States are the primary participants, though engagement of international organizations and non-governmental organizations is also substantial, and is growing from one Conference to the other. What is notable is that the decision to invite private sector to the 1982 and 1999 Conferences was unanimous, and during the latter States were the ones taking initiative and inviting representatives of non-governmental actors.

With regard to the private sector participation it has been noted earlier that their presence during UNISPACE 82 should be understood as an indication of States' growing awareness of greater future involvement of commercial components in outer space activities. By the time of UNISPACE III, commercialization of space activities had become not only apparent, but had already established itself as the prominent feature in outer space exploitation. This was duly noted during the general discussion, and some representatives welcomed the active participation of the private sector in the conference opining that it "reflected the growing government-private sector complementarity at the national, regional and international levels." ⁴³

During the next years participation of private actors in exploration and use of outer space would increase exponentially, and nowadays the private sector represents a major force in space activities development. Hence, it is safe to conclude that the next UNISPACE conference, or any other similarly universal and representative international space conference should include private

⁴¹ INTELSAT was established in 1964, INTERSPUTNIK in 1971, EUTELSAT in 1977.

⁴² The complete list of Conference participants is given in the document A/CONF.184/INF/3.

⁴³ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, at para. 459.

actors in the participants list in order to secure a relevant discussion that covers the most remarkable developments in space exploitation; and that would be unattainable if the private sector and its activities, which are already grand and ambitious, are excluded from deliberations. The UNISPACE Conferences cleared the road for the private sector participation, proved that it is an important addition to international space conferences, and convinced most States and the academic community that their example should be followed.

4.2.2 Secretariat

In addressing the secretariat criterion the following question should be answered: Who is performing administrative or any other required functions during and in between the meetings? It has been earlier established that the exact scope of performed functions is not indicative of the legal attribution of the administrative entity, though this characteristic should not be completely overlooked since the breadth of the functions performed and the quality of the services provided serve as an additional indication in favor of utilizing one structure of an administrative entity over the other.

Preparation, organization and holding of the UNISPACE I Conference were conducted by COPUOS; the procedures and agenda were negotiated and agreed upon by the Working Group established within the Committee; and necessary preparatory communications were held through the United Nations machinery.

UNISPACE 82, which was held in Hofburg Palace in Vienna, Austria, similarly, was prepared and administered using Committee's and United Nations Secretariat's capabilities. The General Assembly designated COPUOS as the Preparatory Committee for the Conference; and the Scientific and Technical Subcommittee, which acted as the Advisory Committee to the Preparatory Committee, had established in 1976 an informal working group to consider various proposals regarding the Conference.⁴⁴ As a result of four sessions of the Preparatory Committee the rules of the procedure were drawn and the officers to be elected by the Conference were proposed.⁴⁵ The Secretary General formulated a 132-page draft report for the Conference's discussion and approval based on the outline approved by the Preparatory Committee and taking

⁴⁴ See, United Nations, *Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, Vienna, 9-21 August 1982, A/CONF.101/10, at p. 439.

⁴⁵ *See*, The second U.N. Conference on the Peaceful Uses of Outer Space (UNISPACE 1982), August 9-21, 1982: report submitted to the Committee on Foreign Affairs, U.S. House of Representatives (1983), at 5.

into account the information in the background papers and the views expressed in the national papers and regional seminars.⁴⁶ The same path as with UNISPACE I, thereby, was chosen in terms of conference's arrangement, what provides indirect evidence in favor of a conclusion that utilization of the United Nations secretarial structures proved to be an effective solution for a universal conference with numerous participants.

COPUOS during its 1996 session decided that the Committee and the Scientific and Technical Subcommittee would act as the Preparatory Committee and the Advisory Committee for UNISPACE III, respectively, and the Office for Outer Space Affairs would act as the executive secretariat. Therefore, yet again the United Nations machinery was employed to service the Conference.

The UNISPACE Conferences represent a typical case of 'borrowing' administrative capacities of the hosting international organization for the duration of the conference. In each case secretarial functions were performed by COPUOS and its Scientific and Technical Subcommittee and the United Nations Office for Outer Space Affairs. In 1962 and 1999 the Conferences were held at the United Nations office in Vienna, and in 1982 the space – Hofburg Palace – was provided by the hosting country. In each case preparatory work was supported by permanent United Nations staff, and Conferences' officers were elected by the participants from the States' representatives just for the duration of the Conference. Budget, similarly, was allocated from the United Nations funding.

It should not be presumed, however, that responsibilities of all three UNISPACE Conferences' secretariats were automatically conferred upon the appropriate United Nations divisions. To the contrary, as it has been shown above, each conference was called for separately and had a unique line of preparatory meetings and negotiations. Both the second and the third Conferences were postponed several times in the absence of the COPUOS members' support; UNISPACE 82 and UNISPACE III boasted comprehensive preparatory regional meetings, while formats and locations of these events were different;⁴⁷ UNISPACE 82 was held in Hofburg Palace by contrast to the other two conferences, whereas the very issue of the Conference's

⁴⁶ See, United Nations, *Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, Vienna, 9-21 August 1982, A/CONF.101/10, at p. 452.

⁴⁷ E.g., for UNISPACE 82 regional preparatory meetings were conducted through the UN Space Applications Programme seminars, see United Nations, *Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, Vienna, 9-21 August 1982, A/CONF.101/10, at p. 451. UNISPACE III Preparatory Meetings were conducted in the form of regional conferences held in Kuala Lumpur in May 1998, in Rabat in October 1998, in Concepción in October 1998, and in Bucharest in January 1999.

location became a reason for a fierce argument between the Western and the Soviet-bloc countries;⁴⁸ even the participation fluctuated substantially from one meeting to the other, where the last Conference attracted over two thousand participants, a number that was unimaginable for the first UNISPACE Conference.

Hence, while each UNISPACE Conference utilized administrative capacities of the United Nations system, based on the enumerated discrepancies in the three conferences' organizational matters a conclusion should be drawn that each time the choice of the entity performing secretarial functions was made specifically pertaining to the arranged conference. In other words, at no point in time did States made a decision to use the United Nations Secretariat for all further UNISPACE conferences. That being the case, a tendency is evident: each time COPUOS and the United Nations Office for Outer Space Affairs were chosen as the proper organs that can be charged with conferences' secretarial functions. And each time these designated organs proved that they were the right choice, that they were capable of handling the whole mass of paper and organizational work that is characteristic for a universal international organization. Moreover, despite the growing number of participants, despite the increasing private sector participation, which of course should be duly noted when arranging the conference's schedule and course of work,⁴⁹ the next Conference had always surpassed the previous one in terms of organizational flawlessness and smoothness of overall work.

The conclusion is offered that utilization of the United Nations secretarial capacities was beneficial for all three UNISPACE Conferences securing a required preparatory work, high level of administration, efficient meetings' organization and scheduling and effective document flow.⁵⁰

⁴⁸ *Cf.*, The second U.N. Conference on the Peaceful Uses of Outer Space (UNISPACE 1982), August 9-21, 1982: report submitted to the Committee on Foreign Affairs, U.S. House of Representatives (1983), at 9.

⁴⁹ *Cf.*, United Nations General Assembly, Note by the Secretary-General, *Review of the Implementation of the Recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, 23 July 2004. A/59/174. (It was acknowledged that "while the engagement of non-governmental entities in the process of implementing the recommendations of UNISPACE III was considered important, engaging the private sector by identifying appropriate and meaningful ways and means for it to work with Governments and international organizations as partners has turned out to be a challenge." By extension, it is likely that the Conference's secretariat was facing similar challenges.)

⁵⁰ 2018 "UNISPACE+50" THEME OF STSC, LSC and COPUOS, Note by the Past, Present and In-coming Chairs of COPUOS (2015), at para. 2, A/AC.105/C.1/2015/CRP.

4.2.3 International Legal Personality

One of the defining criteria is the international legal personality. In Chapter 1 it has been concluded that international conferences do not possess international legal personality, and international organizations are the only mechanisms of cooperation enjoying international personality. It has been further concluded that international legal personality is a prerequisite for a status of subject of international law, and that four characteristics should be met in order to determine existence of such a status.

With respect to the UNISPACE Conferences, none of the characteristics is met. First, UNISPACE 82 and UNISPACE III both had non-governmental entities as their participants, while legal personality, as defined earlier, is characteristic only for associations of States or international organizations or both. Further, following the definition of an international organization, it is clear that non-governmental entities cannot be a part of such an organization. Second, none of the UNISPACE Conferences had an organ that was not subject to authority of any other organized community. With respect to the secretariat criterion it has been concluded that the UNISPACE Conferences were utilizing secretarial structures of the hosting organization for the benefit of the conference, and that the decisions to 'borrow' United Nations administrative capacities were made on case-by-case basis. Hence, neither of the Conferences had possessed or obtained in some way an independent, 'its own' secretariat that answers only to the Conference.

Moreover, even actions taken as a result of the Conferences, for example, the creation of the Programme on Space Applications was also carried out through the means of the United Nations, thus reaffirming the conclusion that not a single permanent institution had been created for or as a result of the UNISPACE Conferences. All organs that acted for the benefit of the Conference or have been performing functions as per Conference's decisions retained the status of an organ of the United Nations and thus were subject to the United Nations authority.

Third, no legal powers of the Conference can be identified: none of the three Conferences was entitled to produce legally binding documents. Fourth, in the absence of legal powers, application of any other powers bestowed onto the entity on the international or national plane is irrelevant for the legal analysis. Taken together, these considerations allow concluding that none of the UNISPACE Conferences possessed legal personality.

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4.2.4 Term of Existence

Although the conclusions pertaining to the fourth criterion, the term of existence, are rather straightforward, a few considerations should be added. Each Conference was called for separately, and all three UNISPACE Conferences were convened for a specific period determined in advance. Despite usage of the same name, changing only the prefix indicating either the ordinal number of the conference or the year of the conference, the UNISPACE Conferences were all commenced on an *ad hoc* basis. There was no predetermined frequency of the Conferences, and there was not a set number of subjects for discussion: whereas the first Conference was focused on a greater inclusion of developing States into enjoyment of space-related technologies, the last one covered numerous issues, which were relevant for all States notwithstanding their level of economic development.

It is suggested that, generally speaking, such stand-alone, specifically convened and organized conferences are most potent because each conference is called for only when there is a broad agreement about its timeliness and relevance, the States are free to modify and adapt the agenda depending on the contemporary needs and issues, and last but not least the resources are spent efficiently, thereby incentivizing States to participate only if they find it beneficial to them and only to the extent they can afford.

4.2.5 Binding Force of Documents Produced

The first two Conferences did not produce any concluding documents apart from the COPUOS Reports, which were legally non-binding. UNISPACE 82 adopted only one resolution at its closing plenary meeting entitled "Expression of Gratitude to the Host Country".⁵¹ With all due respect and appreciation to the government of Austria, the named resolution cannot be regarded as a legally binding one.

Over time the UNISPACE Conferences' agendas have shifted from purely technical and scientific issues discussed during the first two Conferences to a greater inclusion of legal aspects in the work of UNISPACE III. Although it might be an exaggeration to assert that "international space law was a prominent part of deliberations in the Intergovernmental Conference and the Technical Forum alike,"⁵² the mere fact of inclusion of law-related issues in the topics under

⁵¹ United Nations, *Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, Vienna, 9-21 August 1982, A/CONF.101/10, at p. 605.

⁵² M. Benkö, K.-U. Schrogl, Space Law at UNISPACE III: Achievements and Perspectives, 49 ZLW (2000), at 76.

considerations was a notable shift compared to the first two UNISPACE Conferences. This, however, did not alter the orientation of the Conference toward promotion of a greater dialogue on the questions of space technology application and harmonization of worldwide efforts in space technology utilization. Furthermore, greater focus on legal issues did not alter the nature of the adopted documents. Just as in 1968 and 1982, UNISPACE III was concluded by adoption of the final act in the form of a COPUOS Report, which was of a legally non-binding nature.

The conference adopted three resolutions, including the one summarizing results of UNISPACE III and outlining a strategy to address global challenges in outer space exploration and use entitled "The Space Millennium: Vienna Declaration on Space and Human Development." The Vienna Declaration was an innovation compared to the first two Conferences, but again it should be characterized as a political commitment, not as a legally binding one. In Chapter 1 it has been suggested that the agreement is presumed to be non-binding where the substance of the agreement is no more than the description of policy, purpose or intent, and when the text of the agreement lacks precision.⁵³ The Vienna Declaration undoubtedly is a promulgation of general policy since it expressly proclaims that it "declares a strategy," "recognizes the tremendous achievements of space science and technology," and "emphasizes that objective of sustainable development will require action." Similarly, the short text aimed at promotion of an ample number of goals was not able, or more accurately was not intended to prescribe particular measures toward achievement of the enumerated goals. In spite of the legally non-binding character of the Declaration, it is widely acknowledged that it has a remarkable political value.⁵⁴

Proper attention should be paid to 'tangible' results produced by the three Conferences: UNISPACE I established the United Nations Programme on Space Applications, UNISPACE 82 extended its mandate, the Vienna Declaration prompted States to create 12 initiative groups to fulfill some of its recommendations, and a separate agenda item was included in the work of the Scientific and Technical Subcommittee. These results, however, should not be misleading with regard to the legal nature of the documents produced by the Conferences. The United Nations Programme on Space Applications has been created and maintained not by the States, but within

⁵³ See, H.J. Hahn, "International Organizations, Resolutions," in *Encyclopedia of Public International Law*, Vol. 2 (1997), at 1334.

⁵⁴ M. Benkö, K.-U. Schrogl, Space Law at UNISPACE III: Achievements and Perspectives, 49 ZLW (2000), at 76.

the United Nations system,⁵⁵ thus excluding the possibility of imposition of legal obligations onto participating States. Participation in the initiative groups created for Vienna Declaration's measures implementation was voluntary and was not triggered by any legal obligation. Finally, inclusion of a separate agenda item was not prescribed by any document adopted during the Conference, rather it was recommended,⁵⁶ and members of the Scientific and Technical Subcommittee adopted this decision during the Subcommittee's session using the appropriate procedure.⁵⁷

While important discussions took place during all three UNISPACE conferences and they all had practical results, albeit of a different scale and importance, none of them produced legally binding documents. Practical achievements in implementation of the Conferences' recommendations should be attributed to the initiative and zealousness of particular volunteered States and international organizations, and to promotion of implementation of their recommendations by COPUOS and its Subcommittees, but not to a legally binding nature of any of the adopted decisions.

4.2.6 Existence of Opportunity to Modify Obligations

Having determined that none of the Conferences produced legally binding documents and imposed obligations on the participating States, application of the final criterion leads to a conclusion that neither the opportunity to modify obligations was provided for, nor the right to modify obligations was necessary.

4.3 Evaluation and Conclusions

4.3.1 Purposes and Results of UNISPACE I and UNISPACE 82

The main goal of UNISPACE I may be summarized as stimulation of interest in both

developed and developing nations in space and its applications. It is important to keep in mind

⁵⁵ See, UN Office for Outer Space Affairs, UN Programme on Space Applications, http://www.unoosa.org/pdf/publications/ST SPACE 52 Rev1.pdf.

⁵⁶ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, Resolution I "The Space Millennium: Vienna Declaration on Space and Human Development", part I, para. 1(e)(v).

⁵⁷ See, United Nations, Report of the Committee on the Peaceful Uses of Outer Space, Official Records, Fifty-fifth Session, Supplement No. 20 (A/55/20).

that the first UNISPACE Conference was convened when international space law was still in a process of formation and development. It comes as no surprise that space law was not a separate item on the Conference's agenda; drafting and negotiation of outer space treaties were concentrated within the COPUOS Legal Subcommittee, and the Conference was apparently deemed an inappropriate venue for legal discussions. Rather, the Conference focused on practical considerations, on issues of greater inclusion of all States in benefitting from outer space exploration then and for the time to come. Thereby, establishment of the United Nations Programme on Space Applications and establishment of working groups in COPUOS to study questions such as remote sensing, and direct broadcast satellites as the only tangible results of UNISPACE I fit logically in the priorities of the Conference. In the absence of agreements pertaining to specific issues of outer space exploration and use, and in the absence of detailed recommendations aimed at States, rather than institutional entities within the United Nations system, this Conference should be characterized as a deliberative conference that focused on general discussions and exchange of points of view on certain topics.⁵⁸

UNISPACE 82 "was convened to allow wider participation of Member States in the activities of the United Nations in outer space and to assess the new developments, to exchange information and experiences on their present and potential impact, and to assess the adequacy and effectiveness of institutional and cooperative means of realizing the benefits of space technology."⁵⁹ The work of the Conference was focused on three core subjects: the state of space science and technology, current and potential applications of space technology, and international cooperation and the role of the United Nations. The question of space technology applications was undoubtedly the focal point of deliberations. Participants emphasized the need for greater cooperation to create communications systems; access to data was another paramount issue, especially for developing countries. The issue of geostationary orbit utilization was as controversial as the issue of space demilitarization. But again, if timing is kept in mind, concentration of the Conference on practical applications is not at all surprising: none of the four sets of principles regulating these and other practical matters had been adopted yet, and still only two States were able to fully benefit from outer space exploitation.

⁵⁸ Cf., J. Kaufmann, Conference Diplomacy: An Introductory Analysis (1988), at 6-7.

⁵⁹ United Nations, *Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, Vienna, 9-21 August 1982, A/CONF.101/10, at p. 7.

The Conference did not consider space law as a special topic during the official deliberations – precisely due to unresolved conflicts at that time,⁶⁰ especially in areas of disarmament and peaceful uses of outer space, but geostationary orbit exploitation and data accessibility legal concerns were also among the restricted 'grey' areas, where technical questions were permissible and legal issues were not even touched upon. So while the legal issues were left to COPUOS, technical questions became the cornerstone of the Conference.

UNISPACE I and UNISPACE 82 were both dedicated to promotion of greater inclusion of non-spacefaring and developing States in the enjoyment of space technology and space related benefits. As it was pointed then out, "in several aspects UNISPACE 82 was typical of other conferences dealing primarily with developing country issues."⁶¹ In this respect both Conferences should be viewed as successful in taking steps toward achievement of the stated goal. Although both Conferences had little to add to space law, it should not be viewed as their weakness, quite to the contrary. COPUOS in the 1970s and 1980s negotiated and drafted three out of five space treaties and three out of four sets of principles⁶² – is not this a persuasive argument that the Committee was then living through its most fruitful period? Despite all the tensions of the Cold War, despite the controversies between the developing and the developed States, despite the undeniable supremacy of two States in outer space exploration and use, despite all these obstacles the Committee was as effective as it ever was. So why disrupt the process?

It is not to imply that UNISPACE 82 was a useless gathering that was not entrusted with a noble and complex issue of legal documents drafting; to the contrary, it was a timely event that concentrated on the issues that were of interest to all participants, on the issues where open exchange of views did not necessarily lead to irreconcilable controversies and a meeting deadlock, namely the technical and scientific issues. And most importantly it was able to provide States with a comprehensive overview of legal and technical developments, giving an

⁶⁰ See, M. Benkö, K.-U. Schrogl, Space Law at UNISPACE III: Achievements and Perspectives, 49 ZLW (2000), at 76.

⁶¹ United States, Office of Technology Assessment, Congress, UNISPACE '82: a context for international cooperation and competition: a technical memorandum (1983), at 49.

⁶² The Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, UNGA Res. 37/92 of 10 December 1982; The Principles Relating to Remote Sensing of the Earth from Outer Space, UNGA Res. 41/65 of 3 December 1986; The Principles Relevant to the Use of Nuclear Power Sources in Outer Space, UNGA Res. 47/68 of 14 December 1992; The 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, UNGA Res. 51/122 of 13 December 1996.

opportunity to voice concerns and ask questions, and so reminding each participant that outer space remained the province of all mankind no matter your space capacities, thereby alleviating fears and concerns of non-spacefaring States of their exclusion from outer space exploitation.

Making legal issues a part of the discussion would have been a mistake for several reasons. First, a conference is a meeting limited in time, where the time pressure might sometimes incentivize participants to work on schedule, but when the conference was not from the very beginning arranged to discuss legal questions, it would lead to detrimental haste and muddle. Second, at that time too many legal questions were still unresolved, so opening up a discussion about this interconnected bundle of legal mayhem in addition to time constraints could hardly promote constructive discussion. Third, during that period procedures and working methods of COPUOS and its Subcommittees were most effective and fruitful; hence, it would have been counterproductive to disrupt the work of the Committee by way of involving the conference into law-making activities. Overall, the Conference was able to address those issues that could be discussed in a good faith manner without provoking additional controversies, and to avoid other matters that were better dealt with at a different time and place.

4.3.2 Results of UNISPACE III: Lessons to Be Learned

UNISPACE III considered a broad scope of issues as reflected in the theme of the Conference "Space Benefits for Humanity in the Twenty-First Century". On the one hand, the shift from an almost exclusive consideration of the issues relevant for developing countries was the result of the "Space Benefit" Declaration adoption in 1996, which was in substantial part devoted to promotion of greater consideration of developing States' interests and their inclusion in the process of international space cooperation.⁶³ On the other, such shift was caused by adoption of four major outer space treaties, which were absent when the first UNISPACE was commenced, and four sets of principles, which were adopted only after the second Conference, thus resolving the most pressing legal issues of outer space exploration and use. But more importantly, it was a result of a greater inclusion of private entities into the process of outer space exploitation that ultimately led to blurring of State borders and prospective involvement of every State in outer space activities. Commercialization made outer space exploitation a transborder activity, not a State-centered one.

⁶³ Supra, para. 1.1.4.

The purpose of the Conference was to "review and highlight the significant advances of space science and technology that had taken place since 1982 with a view to promoting their greater use in particular by developing countries, in all areas of scientific, economic, social and cultural development."⁶⁴ While the wording resembles the phrasing used in formulating UNISPACE 82 purposes, this one strikes as a broader one: while emphasis on space science and technology and interests of developing States is still present, it is counterbalanced by a broad formula covering "all areas of scientific, economic, social and cultural development," thus giving an impression that space science and technology are now viewed as an indispensable part of scientific and economic, social and cultural areas of life alike.

The results triggered by UNISPACE III prove that in the twentieth century outer space ceased to be a matter for engineers and scientists, that it has become a part of the everyday life. In addition to the immediate results already covered, many more indirect results can be identified, particularly in the areas of education, promotion of regional space-based systems compatibility, environment protection and disaster prevention, even control over illicit narcotic crops and standardization of land mapping.⁶⁵ It was suggested that the success in implementation of UNISPACE III recommendations was possible due to prioritization of work, flexibility in conducting work throughout the year, maximizing opportunities to meet and communicate, coordination and distribution of work, and strong leadership and support of the United Nations secretariat.⁶⁶ Acknowledging the important part played by all these factors, especially the flexibility and proper coordination, in successful implementation of the Conference's recommendations, there is more to it.

First and foremost, space technology has become an indispensible part of modern life. Agriculture, manufacturing, minerals prospecting, transportation, communications, fundamental high-technology scientific research and analysis – all these and many more areas of modern economy are dependent on space-based technology. That is why most recommendations enumerated in the Vienna Declaration turned out to be practically achievable, and even more so – they turned out to be beneficial to many States, they resonated with the values and goals

⁶⁴ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, at para. 55.

⁶⁵ See, United Nations General Assembly, Note by the Secretary-General, *Review of the Implementation of the Recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space*, 23 July 2004. A/59/174.

⁶⁶ *Id*. at para. 170.

promoted by States, international organizations and non-governmental entities, which volunteered to lead these recommendations implementation.⁶⁷

Space ceased to exist in an abstract reality akin to quantum physics; it appeared here and now, relevant for most States, numerous international organizations, hundreds of commercial entities and millions of people. Globalization of the world economy and greater interconnectedness of people's lives all over the globe, effectiveness of space technology in addressing humanitarian situations, environmental issues and responding to natural disasters – all these factors stimulated States' readiness to put into action Vienna Declaration recommendations. And lastly, space technology became accessible for many countries, finally giving space exploration a worldwide perspective, allowing States to cooperate as equal partners, unite in their cooperative efforts in bringing space benefits to Earth. In other words, accessibility of space technology to dozens of States made cooperation on a large scale practically feasible, mutually beneficial, and finally commercially viable, thus introducing an immutable characteristic of a compelling international activity - profitability.

Based on the review of the UNISPACE Conferences and particularly UNISPACE III, a conclusion about the necessary prerequisites for a successful multilateral international space conference can be drawn. In the beginning of the space era, when only a handful of States were able to meaningfully participate in outer space exploration and use, the major trend was the inclusion of a broader number of States in space activities. Nowadays the main concern is proper communication. The growing number of spacefaring States, broad-scale participation of the private sector in all types of outer space activities, development of ambitious future projects, both on governmental and private level; all these factors are contributing to the need for effective collaboration mechanisms. UNISPACE III with its extensive preparatory meetings, rigorous schedule and excellent administrative support provided a successful forum for discussions,

⁶⁷ Action teams established by the Committee on the Peaceful Uses of Outer Space implemented the following recommendations of UNISPACE III: develop a comprehensive, worldwide environmental monitoring strategy; improve the management of the Earth's natural resources; enhance weather and climate forecasting; improve public health services; implement an integrated, global system to manage natural disaster mitigation, relief and prevention efforts; improve knowledge-sharing through the promotion of universal access to space-based communication services; improve universal access to and compatibility of space-based positioning systems; promote sustainable development by applying the results of space research; improve the international coordination of activities related to near-Earth objects; enhance capacity-building by developing human and budgetary resources; increase awareness among decision makers and the general public of the importance of space activities; identify new and innovative sources of financing to support the implementation of the recommendations of UNISPACE III.

deliberations and networking between States, international organizations and non-governmental actors.

It has been said that "without adequate preparation of necessary conference services and facilities, chaos and confusion, and possibly complete failure of the conference are difficult to avoid."⁶⁸ This is as true as it can be: organizational matters, while often overshadowed by brilliant speakers and cutting edge issues under consideration, are the foundation of any successful meeting. This is even more true for the conferences with numerous participants coming from different countries, cultures, areas of specialization, and having different statuses, where their collaborative work becomes a challenge, and only those with necessary experience are capable of handling it in a sensible manner.

Based on the UNISPACE Conferences experience, it can be concluded that excellent conference services are the mandatory prerequisite for a successful international conference. Moreover, utilization of an international organization's secretarial capabilities plays to the advantage, giving the conference necessary administrative support, relieving participants from the task of handling organizational matters and thus providing them enough time and space to concentrate on the substantial matters. The only concern in this regard is the possibility of an undesirable influence of the hosting organization on the flow of the discussion and accessibility of the rostrum for certain participants. The answer to that is as follows: there is always a chance that a secretariat might unduly interfere precisely because organizational matters are capable of both elevating the quality of a meeting and downgrading it to an incomprehensive sequence of monologues; and States have found a way of mitigating, or at least diminishing such a risk by way of introducing a rigorous selection procedure of the secretariats' staff and endowing them with a status of international civil servant requiring independence and commitment to the organization's values.⁶⁹ Thereby, it is suggested that utilization of a hosting international organization's secretariat is desirable to ensure conference's effectiveness. At the same time,

⁶⁸ J. Kaufmann, Conference Diplomacy: An Introductory Analysis, (1988), at 33.

⁶⁹ See, International Civil Service Commission, *Standards of Conduct for the International Civil Service 2013*, UNGA Res. 67/257 (The international civil service bears responsibility for translating into reality aims of the United Nations and the specialized agencies to save succeeding generations from the scourge of war and to enable every man, woman and child to live in dignity and freedom. "It relies on the great traditions of public administration that have grown up in member States: competence, integrity, impartiality, independence and discretion. But over and above this, international civil servants have a special calling: to serve the ideals of peace, respect for fundamental rights, economic and social progress, and international cooperation. It is therefore incumbent on international civil servants to adhere to the highest standards of conduct; for, ultimately, it is the international civil service that will enable the United Nations system to bring about a just and peaceful world.").

while the secretariat's importance should be acknowledged, there are numerous other factors that influence the conference's effectiveness, and so 'borrowing' an organization's secretariat is by no means a panacea.

Additionally, in spite of the end of the Cold War, tensions between States, albeit on a smaller scale, still exist. On a bilateral level such States might be unable to negotiate in a good faith manner, while a multilateral platform creates a different atmosphere, where a lack of understanding is counteracted by a large number of participants. For example, nine amendments were introduced to the text of the Vienna Declaration, including those from Chile, Canada, Bolivia, Australia, Venezuela, Russia and India.⁷⁰ Despite these States' different levels of involvement in outer space activities, despite differences in their levels of economic development, in the end the compromise was reached, and as it has been shown above, steps were taken toward implementation of provisions resulted from these trade-offs. This, surely, being not a legal characteristic of a conference, still should be considered when drawing conclusions about the areas where an international universal conference is an effective way to cooperate.

As demonstrated by the UNISPACE Conferences experience, there are two elements to an international conference's success: organizational and substantive. From the organizational standpoint, a widely attended conference, first, requires extensive planning. Preparatory meetings, preliminary formal and informal consultations ensure that matters important for different regions, for States at varying levels of involvement in outer space activities, for international organizations dealing with specific aspects of outer space exploitation and for private entities representing different divisions of the space industry, are all a part of the conference agenda.

Second, a conference should boast an excellent organization, possess effective administration and defer to efficient rules of procedure, which at the same time are acceptable for the majority of participating States. While UNISPACE III was utilizing secretarial capacities of the United Nations, participants were nevertheless immediately involved in drawing up rules and procedures of the Conference. Pre-Conference consultations were held a day before the Conference opening and were open to all member States to reach an informal agreement on the

⁷⁰ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, Annex I.

recommendations of the Preparatory Committee for the Conference on organizational and procedural matters. At the first plenary meeting the Conference adopted provisional rules of procedure recommended by the Preparatory Committee for the Conference modified by the agreement reached in the pre-Conference consultations.⁷¹

There are two substantive elements that contribute to the universal conference's success. Unlike procedural aspects, however, these can only be sketched in broad terms because for every particular conference contents would vary depending on the specifics of the conference in question. First, an established legal regime should be present, but the latest developments in science should be posing new issues that have to be discussed to ensure that the legal regime is not falling behind the practice. In the UNISPACE III context this element was undoubtedly present: on the one hand, the general legal regime of outer space exploration and use had already been in place by 1999, and on the other hand, rapid commercialization of space activities demanded that the emerging legal issues of private sector presence in space were addressed.

Second, the agenda of the conference should reflect the practical state of affairs in the area. It has been earlier shown that exclusion of legal issues from the UNISPACE 82 agenda was a wise move allowing participating States to exchange views and share information about technical components of outer space exploitation, at the same time preventing legal controversies from emerging during conference deliberation for the sake of continuing fruitful work going on in COPUOS. The UNISPACE III broad agenda, by contrast, did not specifically exclude any particular area from the Conference's consideration because, as it has been explained above, the legal, economic, social and technological climate had changed opening the door for greater inter-State space cooperation and understanding. The trick here is the right balance between the needs and capabilities, between what is already a non-controversial issue and what should and can be discussed without undue disruption to positive tendencies in cooperation, legal regulation or technological collaboration.

Comparison of the first two UNISPACE Conferences and UNISPACE III thus shows that modern universal international conferences are called to work on a broad agenda, which does not single out interests of particular States or groups of States, but which rather covers issues relevant for the whole community engaged in the activity made the centerpiece of the

⁷¹ United Nations, *Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space* (Vienna, 19-30 July 1999), A/CONF.184/6, para. 440.

conference. In the present analysis it means that an international space conference is open to every interested State, various international organizations and non-governmental actors, and that every participant can expect that issues important for him would be discussed as extensively as any others.

In such circumstances universal international conferences are most helpful in promoting open deliberations, working toward enhancement of cooperation and creating partnership climate among participating subjects. The grand gatherings akin to UNISPACE III with a broad agenda attended by over two-thousand and five-hundred participants from over a hundred States and thirty international organizations, that do not result in a legally binding document should not be expected to result in immediate actions of participating States; neither can one anticipate a booming cooperation. But a successful conference, the one that covered the issues that actually were on the mind of most participants, would incentivize and stimulate cooperation, and results would reveal themselves, sooner or later.

2018 marks the fiftieth anniversary of the first UNISPACE Conference and it was proposed that this could be a fitting time to evaluate contributions of the three UNISPACE Conferences to global space governance. During its 2015 session, COPUOS had before it a note by the Secretariat entitled "Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: theme of the sessions of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee in 2018," which was welcomed and endorsed by the Committee.

The note prepared by the past, present and incoming Chairs of COPUOS suggests that the fiftieth anniversary of the first UNISPACE conference is an "opportunity to consider the current status and chart the future role of COPUOS at a time when more actors, both governmental and non-governmental, are increasingly involved in ventures to explore space and carry out space activities. It has been 15 years since UNISPACE III that was, by all accounts, a success both substantively and organizationally. UNISPACE III was also the last United Nations global conference of the millennium. Much has changed in the space enterprise since the beginning of the 21st century and it is appropriate for the global space community to take stock of what has

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been accomplished and what can be expected for the future, including through looking into the results of the multi-year review of the implementation of UNISPACE III (UNISPACE III+5)."⁷²

The Note prepared by the Secretariat proposes inclusion of five broad topics for consideration in the agenda of UNISPACE III+5: governance, including the United Nations treaties and principles on outer space; capacity-building, including activities of members of COPUOS and work undertaken by the Office for Outer Space Affairs on space science and technology education; resiliency, including matters related to the ability to depend on space systems and to respond to the impact of events such as adverse space weather; interoperability, including work done by the International Committee on Global Navigation Satellite Systems and other coordination mechanisms; and space for sustainable development.⁷³ It is noteworthy that consideration of legal issues is put at the forefront of the Conference's tentative agenda.

Further, the Note makes clear that the next Conference requires a different and more simplified approach than that used for the previous UNISPACE Conferences "due to the current nature of space affairs and financial situation." It is suggested that UNISPACE III+5 would be held in place of the Main Committee session and that no additional funding would be allocated for the cause. Further, the group of members of the bureau of the Committee, the chairs of the working groups and the Director of the Office for Outer Space Affairs would be serving as the steering committee for the preparations for UNISPACE III+5.

All preparatory activities are to take place during COPUOS and its Subcommittees' sessions in 2015-2017, effectively eliminating the need for additional financing of the Conference arrangements. At the same time, "All Member States of the United Nations and the broader space community, including United Nations entities, other international intergovernmental and non-governmental organizations and the private sector, should be invited to participate in a dedicated commemorative segment of the Committee in June 2018."⁷⁴ Keeping in mind that COPUOS membership is limited to seventy-seven States, at this point it is not entirely clear how preparatory activities restricted to the Committee framework might be effective in preparation of a conference with a wide State and non-State participation.

⁷² 2018 "UNISPACE+50" THEME OF STSC, LSC and COPUOS, Note by the Past, Present and In-coming Chairs of COPUOS (2015), A/AC.105/C.1/2015/CRP.

 ⁷³ Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: theme of the sessions of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee in 2018, Note by the Secretariat (2015), at para.16, A/AC.105/L.297.
 ⁷⁴ Id. at para. 15.

Quite clearly, the details of the conference are yet to be elaborated. At this point two reflections should be added. First, the initiative to commence the UNISPACE Conference to review achievements of the past half a century and to pave a road ahead should be applauded. Second, the UNISPACE III experience underlined that a conference with a large and diverse participation requires excellent preparation and management. Hopefully, in spite of the financial constraints, COPUOS and the Office for Outer Space Affairs, having by now gained extensive experience in organization of meetings and conferences of varying scope and duration, would succeed in stretching the funds available a long way toward effective and successful conference.

Chapter 5. International Telecommunication Union

5.1 Overview

5.1.1 Introduction

"Curiously, the importance of the ITU [] now remains largely unacknowledged although without [it] international communications would not exists. In general [it] works well, and, working well, [it is] taken for granted."¹ Indeed, the International Telecommunication Union (ITU) is one of those international entities performing activities vital for the proper operation of the world, as we know it today, but at the same time remaining on the low radar of international attention. Nevertheless, it is suggested that the ITU is one of the key players not only in international telecommunications in general, but also in the developing and changing landscape of outer space activities. Greater involvement of the private sector in satellite-related business would only further increase the importance of effective regulation of international communications.

Simultaneously, it is likely that an increasing importance of national space law,² especially that pertaining to regulation of private entities' activities, will not result in a corresponding diminishing role of the ITU in regulation of telecommunications as far as outer space is concerned. "For there to be international communication connections it is both sensible and desirable that systems and procedures are agreed between the states concerned and that they are complied with. Once that happens there is little point in the internal communication systems of a state differing unnecessarily from the relevant agreed international system. Effectively the internal variant would be redundant. The result is that internationally agreed arrangements are considerably determinant of national systems at least in their technical aspects."³

¹ F. Lyall, *International Communications: The International Telecommunication Union and the Universal Postal Union* (2011), at 5.

² See, e.g., F.G. von der Dunk, "Another Addition to National Space Legislation: The Austrian Outer Space Act, Adopted 6 December 2011," in *Proceedings on the International Institute of Space Law 2012* (2012), at 643-56.

³ F. Lyall, *International Communications: The International Telecommunication Union and the Universal Postal Union* (2011), at 4.

Despite the not-so-obvious connection of the ITU with international space cooperation, a closer look leaves no doubt about a prominent role played by the Union in modern cooperative space activities. First and foremost, space activities are unthinkable without telecommunications being involved; they all need interference-free access to usable radio frequencies. "And indeed, always has the legal framework for dealing with radio frequency usage, as developed in the context of the International Telecommunication Union, been discussed by the space lawyers, often even considered part of space law much as, from the ITU perspective, satellite communication forms only one relatively minor point of the scope of activities."⁴

Functions performed by the ITU are fundamental to virtually all space endeavors. Although it has been rightfully noted that "the feature of overwhelmingly significant policy relevance is of course the vastness – the boundlessness, the inexhaustibility – of space, with its easy accessibility from any part of the earth, making it pre-eminently suitable for shared use by multiple participants with a minimum mutual interference,"⁵ in the realm of the ITU activities even such a colossal expanse as outer space is never free from interference.

"Telecommunications are the nervous system of all activities in space."⁶ Satellite tracking, telemetry and control, and all message transmission to and from satellites cannot exist without radio. But radio communication to and from a satellite must be as free as possible from interference. "Unless there is agreement on the use of radio through ITU conferences, and compliance with the mechanism of the ITU to ensure that interference is kept to a minimum, a satellite is so much expensive junk. The sanction is applied by the inexorable laws of physics, not some fallible legal mechanism, and that is a strength of the system."⁷

In this chapter the structure and internal procedures of the ITU will be reviewed, paying special attention to the Union's space-related activities. It is not feasible to even briefly touch upon every feature of the ITU, its methods of work and employed ways of international coordination within the scope of the present chapter. Therefore, the review will be limited to an institutionally centered analysis performed as a part of the international space law research. First, a brief overview of the history of the ITU, dating back to the middle of the nineteenth century,

⁴ F. G. von der Dunk, *A New 'Star' in the Firmament – Teaching Space and Telecoms Law as a Post-Graduate LL.M. Programme*, Korean J. of Air & Space L. (June 2011), at 419-20.

⁵ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 195.

⁶ C.W. Jenks, *Space Law* (1965), at 251.

⁷ F. Lyall, "The Role of the International Telecommunication Union," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 253-54.

will be provided, accompanied by the outline of legal developments of the past half a century. Second, institutional features, including membership rules, the structure of the ITU organs and the binding force of adopted documents, will be addressed. Finally, taking into consideration the purposes of the Union as defined in its constituent documents and as coined over the decades of its work, conclusions as to effectiveness of the ITU as a method of international space cooperation will be proposed, emphasizing its relevance in the changing landscape of outer space activities for the years to come.

5.1.2 History and Institutional Structure

International coordination in the field of telecommunications was an absolute necessity from the time that telegraphic communications were first used on an international scale. By a treaty of December 30, 1855 the "Union Télégraphique de l'Europe Occidentale" was established. The Treaty of Paris of May 17, 1865 founded the International Telegraphic Union.⁸ The Treaty included provisions that assured to everyone the right to correspond by means of international telegraph, provided for the secrecy of telegraphic correspondence and required uniformity of tariffs and regulations.⁹ The session of the Union in Berlin of 1885 adopted a decision by which it was accepted that the activities of the Union should also include telephone communications. The Treaty of Berlin of November 3, 1906 brought the establishment of the International Union for Radiotelegraphy. The institutions were amalgamated by the Treaty of Madrid of December 9, 1932 and transformed into the International Telecommunication Union. A single International Telecommunication Convention of 1875 and the Radiotelegraph Convention of 1927, containing principles common to telegraph, telephone and radio services.

The Union was profoundly reformed by the Treaty of Atlantic City of October 2, 1947,¹⁰ which was also severely amended later. The 1947 Treaty altered the general structure of the ITU to conform to the usual United Nations pattern.¹¹ It also for the first time expressed the goal of

⁸ Documents diplomatiques de la conférence télégraphique internationale de Paris. Paris : Imprimerie impériale, 1865, available at the official ITU website http://handle.itu.int/11.1004/020.1000/4.1.

⁹ See, J.H. Glazer, *The Law-Making Treaties of the International Telecommunication Union Through Time and In Space*, 60 Mich. L. Rev. 269 (1961-1962), at 272.

¹⁰ International Telecommunication Convention, Atlantic City, 1947, available at the official ITU website http://www.itu.int/dms_pub/itu-s/oth/02/09/S0209000065201PDFE.PDF.

¹¹ See, F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 203.

the ITU to ensure the effectiveness of telecommunications while 'fully recognizing the sovereign right of each country to regulate its telecommunications'. Shortly thereafter the ITU became a Specialized Agency of the United Nations on approval of its special convention by the General Assembly on November 15, 1947,¹² thereby asserting its affiliation to the prominent political international organization, which led to "a greater emphasis [] placed on politics, an area long avoided by the Union."¹³

Generally, "within the ITU the governments and the private sector coordinate the establishment and operation of telecommunication networks and services. This worldwide organization is responsible for the regulation, standardization, coordination and development of international telecommunications as well as the harmonization of national policies. Its goal is to foster and facilitate the global development of telecommunications for the universal benefit of mankind, through the rule of law, mutual consent and cooperative action."¹⁴

The Union deals with electrical wired and radio communication and with optical communication systems. First formally defined for international purposes in 1932, 'telecommunication' is: "Any telegraph or telephone communication of signs, signals, writings, images, and sounds of any nature, by wire, radio, or other systems or processes of electric or visual [semaphore] signaling."¹⁵ The scope of the ITU mandate presupposed the unique level of cooperation exhibited by States in negotiating relevant regulations, thereto often requiring concessions from all parties concerned. "The ITU operates as a necessary organization since behind it stands the Law (or Laws?) of Physics. Physics cannot be avoided, altered or repealed by international agreement even were that agreement to be forged by the most high and significant plenipotentiaries."¹⁶

Against this background, it came as no surprise that the new United Nations specialized agency attracted all United Nations member-States and continued expanding as the number of sovereign States was growing in the 1950s and 1960s. Already in 1944, "when the subject of space telecommunication was left to writers of science fiction, and when the world had considerably fewer sovereign partners sharing in the management of the frequency spectrum as

¹² See, E.R.C. van Bogaert, Aspects of Space Law (1986), at 192.

¹³ J.H. Glazer, *The Law-Making Treaties of the International Telecommunication Union Through Time and In Space*, 60 Mich. L. Rev. 269 (1961-1962), at 283.

¹⁴ N. Jasentuliyana, International Space Law and the United Nations (1999), at 283.

 ¹⁵ F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 13-14.
 ¹⁶ Id.

well as radiocommunication stations opting for occupancy in it, the transfer of some "rulemaking" functions from the cumbersome mechanism of the ITU conference body was considered an administrative necessity."¹⁷ In the following years the growing membership, diversification of membership that required due consideration of interests and views of the newest members, increasingly swift technology development and the introduction of space communications to the Union mandate,¹⁸ all foreshadowed an imminent need for institutional changes.

"Dissatisfaction with the structure and the organizational abilities of the Union rose to a climax in the 1980s. A Plenipotentiary Conference in Nice in 1989 was very conscious that the swiftly changing telecommunications environment required the ITU to alter its structures and procedures. ... On the basis of the report of the High Level Committee, the 1992 Geneva Extra-Ordinary Plenipotentiary Conference of the International Telecommunication Union adopted major structural changes to the ITU."¹⁹ The newly developed Constitution and Convention, which substituted the previous basic single constituent document, were further revised and amended in some details by the Final Acts of the 1994 Kyoto Plenipotentiary Conference, 1998 Minneapolis Plenipotentiary Conference and 2010 Guadalajara Plenipotentiary Conference.²⁰

The Geneva decisions, however, were the ones to give the ITU its present form. Generally, the new system detailed the required schedule of work for both the Union-wide organs and those of the Sectors. The intention of these changes was the promotion of efficiency, cost-effectiveness and a most prompt response to the regulatory need of a rapidly changing international telecommunication environment.²¹

A scholar correctly noted a mere two years after the 1992 Plenipotentiary Conference that the Geneva decisions would come to be seen as a watershed in the history of the Union.²² The new Constitution and Convention profoundly changed the structure of the ITU, whereas introduction of the three Sectors had a twofold importance: on the one hand, it acknowledged the

¹⁷ J.H. Glazer, *The Law-Making Treaties of the International Telecommunication Union Through Time and In Space*, 60 Mich. L. Rev. 269 (1961-1962), at 305.

¹⁸ Cf., F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 130.

¹⁹ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 204-05.

²⁰ Final Acts of all ITU Plenipotentiary Conference, from 1865 to present, are available at the official ITU website http://handle.itu.int/11.1004/020.1000/4.

²¹ Cf., F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 204-05.

²² Cf., F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 131.

need to involve the private sector to a much greater extent in regulation of international telecommunications; and on the other, creation of the Telecommunication Development Sector came as an answer to developing nations' concerns about their influence over the future development of international telecommunications, and as a tool of coordination between developed and developing nations, ensuring that a dialogue continued to be a bedrock of the Union despite the existing differences. And although the mechanics of the ITU were altered greatly, the original purpose of the institution remained inviolable, stimulating international agreement regarding technical arrangements for the sake of international telecommunications prosperity.²³

Currently, according to Article 7 of the Constitution, the ITU has a complex structure and is composed of seven major organs. The Plenipotentiary Conference, which is the supreme organ of the Union, the Council, which acts on behalf of the Plenipotentiary Conference, the world conferences on international telecommunications, and the General Secretariat comprise the pinnacle of the ITU institutional system. Two of those, namely the Plenipotentiary Conference and the world conferences on international telecommunications, perform the most important functions from a regulatory perspective but do not work on a permanent basis, leaving the Council and the General Secretariat to perform Union's day-to-day functions, which are quite massive given the ITU authority over all international telecommunications.

Article 8.1 of the Constitution provides that the Plenipotentiary Conferences should be held every four years, and if possible, both location and dates of the next meeting should be determined by the previous conference. In accordance with Article 7.a of the Constitution, the Plenipotentiary Conference is the supreme organ of the Union composed of delegations representing all member States, where each member has one vote. The many responsibilities of the Plenipotentiary Conference are set out in Article 8 of the Constitution, including those of determination of general policies, establishment of the basis of the budget of the Union and provision of general directions regarding staffing.

The Plenipotentiary Conferences elect members of the Council with 'due regard to the need for equitable distribution of the seats on the Council among all regions of the world'. The membership of the Council should not exceed twenty-five percent of the total number of member States. This provision, aiming at preservation of Council's operability and efficiency by way of

limiting its membership, falls short of fulfilling the task allowing for a 49-member Council. An executive organ should possess operational flexibility and be able to work promptly, what necessarily requires a limited in number membership. Although any number would be an arbitrary choice – after all, international arrangements and their functions are different – it is suggested that a body of thirty members can both ensure representativeness and preserve an ability to work most effectively.²⁴

The Council meets annually in Geneva, although an additional session is a possibility. The general functions of the Council include facilitating the implementation of the ITU Constitution and Convention together with the Administrative Regulations, and of decisions of the Plenipotentiary Conferences and other conferences, as may be required. In the intervals between the Plenipotentiary Conferences and within the powers designated to it, the Council acts on its behalf as the governing body of the Union.²⁵

The General Secretariat is headed by the Secretary General, who is assisted by a single Deputy Secretary General. Each Sector also has a secretariat-like entity – the Bureau, headed by the Director, who is elected by the Plenipotentiary Conference. "The Secretary General, Deputy Secretary General and the three Directors of the Bureaus of the Sectors partake of the privileges of the 1947 Convention on the Privileges and Immunities of the Specialized Agencies, as it may have been incorporated into national legislation."²⁶

Article 27 of the Constitution lays down general principles as to elected officials and staff. The paramount consideration in the election of officials and in staff recruitment is "the necessity of securing for the Union the highest standards of efficiency, competence and integrity" while bearing in mind the "importance of recruiting the staff on as wide a geographic basis as possible." Further, no elected official or staff should seek or accept any instructions from their home State or any other entity, nor should any Member or Sector Member seek to influence them.²⁷ In effect, all ITU officials and staff are provided with guarantees of independence to ensure their international unbiased character of work; and functional privileges and immunities are provided to the officials representing the Union and its organs on the international plane.

²⁴ Cf., C. Pavitt, Small Group Communication: A Theoretical Approach (1998), at 54-55.

²⁵ See, F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 216.

²⁶ F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 153.

²⁷ *Id.* at 145.

The 1992 Geneva Conference introduced three new organs to the ITU structure: the Radiocommunication Sector, dealing with the use of the frequency spectrum and, thus, most important for the present analysis; the Telecommunication Standardization Sector dealing with technical harmonization and development; and the Telecommunication Development Sector charged with supporting entering and presence of developing States in the international telecommunication community.²⁸ Each entity, under its Director's guidance, works through a variety of working groups, study groups, regional conferences and world conferences and assemblies.²⁹ Rigorous procedural regulation and scheduling of Sectors' functioning is essential: currently there is a total of over seven hundred Sector members working in twenty-eight Sectors' study groups.³⁰

The Radiocommunication Sector is the one most relevant for the space law analysis. Chapter II of the Constitution and Section 5 of the Convention cover functioning of the Sector. Its purpose is to ensure "the rational, equitable, efficient and economical use of the radio frequency spectrum by all radiocommunication services, including those using the geostationary satellite orbit, and to carry out studies without limit of frequency range." This has two aspects: studies and work on the Radio Regulations, and the administration of the Master International Frequency Register.³¹

The Telecommunication Development Sector does not directly deal with space related issues, but nevertheless should not be completely overlooked. "The new Telecommunication Development Sector is to deal with all telecommunications development matters within the purview of the Union. The concentrating of development matters in the new Sector is significant. It recognizes the importance of Development within the responsibilities of the Union, gathers much that was already under way under different wings of the Union, places that work on a much more coherent basis, and gives it significant standing within the Union."³²

Undoubtedly, coherent and comprehensive study of the questions of development is of great importance for the organization dealing with an ever-changing matter of telecommunications, which came all the way from a telegraph to high-speed online conference

²⁸ See, F. G. von der Dunk, "Legal Aspects of Satellite Communications," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 464.

²⁹ Cf., F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 218.

³⁰ For more information see, official website of the ITU, www.itu.int.

³¹ See, F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 157.

³² F. Lyall, *The International Telecommunication Union and Development*, 23 J. Space L. 22 (1994), at 28.

calls. And in this context the questions of development are no less important for space related technologies than they are for radio communications. Commercialization of space activities raises not only questions of proper international and national regulation and supervision, but also questions of what lies ahead, and how the concept of 'public good' would be incorporated in regulation of space-based telecommunications of the future, and how interests of all mankind would be addressed when the telecommunication side of outer space exploration and use is concerned.³³

Two additional bodies were introduced to the ITU structure during the 1992 reform. The first one is the Radio Regulations Board, which is comprised of nine members serving on a parttime basis "not as representing their respective Member States, or a region, but as custodians of an international public trust," as provided in Article 14.3.1 of the ITU Constitution. The Board approves the Rules of Procedure under which registration of frequency assignments is made and considers matters that cannot be solved by the application of these Rules by the Director and the Bureau of the Sector.

"Another important decision taken at the [Plenipotentiary Conference 1994] was the establishment of a 'World Telecommunication Policy Forum', thereby signaling a strategic shift on the part of the ITU, from its more traditional role in conventional technology to a more modern policy-oriented approach in international telecommunications. The objective of the Forum is to discuss and exchange views and information on broad telecommunication policy issues, technological issues, technological advances, service options and opportunities, infrastructure development and financial business considerations."³⁴ The first such Forum was held in Geneva in October 1996.³⁵

Overall, nowadays the Union boasts an extensive institutional structure that represents three methods of inter-State cooperation: the world radio conferences, the Plenipotentiary Conferences and the World Telecommunication Policy Forum represent an all-inclusive approach to cooperation providing each State with one vote, thus, resembling a democratic

³³ For a more detailed discussion *see*, F. Tronchetti, "Legal Aspects of Satellite Remote Sensing," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 490-92. For an opinion that the doctrine of 'public good' is not likely to constrain activities in exploration of space resources see, M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 934-35.

³⁴ N. Jasentuliyana, International Space Law and the United Nations (1999), at 285.

³⁵ The Fifth World Telecommunication Policy Forum was held in Geneva, Switzerland, in May 2013, for a duration of 3 days and looked at International Internet-related public policy matters. For more information *see*, official website of the ITU, http://www.itu.int/en/wtpf-13/Pages/default.aspx.

parliament; three Sectors allow for both inter-State, and State and non-State cooperation regarding a specific subject under consideration within the Sector in a controlled environment of study groups and other analogous organs; and the Radio Regulations Board and the Council represent a type of executive organs composed of elected officials and charged with performance of tasks important to all stakeholders, but entrusted to a smaller representative group of members.

5.2 Six-Criteria Analysis

5.2.1 Membership/Participation

Turning to the question of the ITU membership, it should be noted that while the ITU is a traditionally State-centered institution "in that only states at the highest level are parties to the ITU Constitution and ITU Convention, some allowance had to be made for involving private operators at least in the practical decision-making and policy-setting processes."³⁶

In membership the ITU has 'regard to the principle of universality and the desirability of universal participation in the Union'. "Membership of the ITU has two different forms, state membership and Sector membership. State membership (full membership) is open only to states. ... Sector membership is membership of one or more of the three Sectors established by the 1992/4 reconstructions, either as a full or as an associate Sector member."³⁷ These apart, there are also other arrangements under which certain other entities take some part in ITU activities. For example, 'to protect the Rights of Papua New Guinea' the status of that country was preserved as an Associate Member, though the 1992 arrangements abolished the status of an Associate Member of the ITU. Particular provisions have been also made for Palestine.³⁸

In accordance with Article 2 of the ITU Convention, a State may become a member of the Union in one of three ways: any State-member of any ITU Convention prior to the 1992 Constitution and Convention; any United Nations member acceding to the 1992 arrangements;

³⁶ F.G. von der Dunk, "Legal Aspects of Satellite Communications," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 462.

³⁷ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 208.

³⁸ See, F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 142-43.

and any non-United Nations member which applies for membership, secures the approval of two-thirds of the existing ITU members and then accedes to the 1992 arrangements.³⁹

All State members can take part in all conferences, are eligible for election to the ITU Council and can nominate nationals as candidates for election as officials of the Union or as members of the Radio Regulations Board. They all are also Sector members as of right, but their participation in the Sectors is not compulsory.

A Sector member may be a Full Member or an Associate Sector Member, the latter introduced at the 1998 Minneapolis Plenipotentiary Conference, open to non-State entities and allowing for the entity to participate in a single study group.

The decision of the 2010 Guadalajara Plenipotentiary Conference resolved "to admit academia, universities and their associated research establishments concerned with the development of telecommunication/information and communication technology to participate in the work of the three Sectors."⁴⁰ Generally, academia can participate in all conferences and other meetings, including all study groups, except for the Plenipotentiary Conferences and the world radiocommunication conferences, but they do not have a role in decision-making, particularly the adoption of resolutions or recommendations.

By and large, the ITU has an extensive and representative membership allowing for different points of view to be heard and considered. In this sense, the ITU is undoubtedly a pioneer: it was one of the first international actors inviting the private sector to participate on a permanent basis in the decision-making process, albeit limited to those of the Sectors. Inclusion of academia in the list of possible Sector members resonates with the multiple United Nations General Assembly and COPUOS documents emphasizing the importance of education;⁴¹ furthermore, participation of academia has apparently proved beneficial to the work of the Sectors and to the ITU in general and shall be continued beyond the trial period. In accordance

³⁹ *Id.* at 139-40.

⁴⁰ Resolution 169 "Admission of Academia, Universities and Their Associated Research Establishments to Participate in the Work of the Three Sectors of the Union," in *Final Acts of the Plenipotentiary Conference, Guadalajara, 2010* (2011), at 380-82, available at the ITU official website http://www.itu.int/pub/S-CONF-ACTF-2010/en.

⁴¹ E.g., Resolution adopted by the United Nations General Assembly on 5 March 2015 "Education for Democracy", A/RES/69/268; Committee on the Peaceful Uses of Outer Space Legal Subcommittee, Report of the United Nations Expert Meeting on Promoting Education in Space Law (Vienna, 3-4 December 2007), A/AC.105/908; Draft Report of the Committee on the Peaceful Uses of Outer Space Legal Subcommittee (Vienna, 24 March – 4 April, 2014), Conference Room Paper Containing a Directory of Educational Opportunities in Space Law, A/AC.105/C.2/2014/CRP.8.

with the Guadalajara decision on admission of academia to the three Sectors of the Union, academia was initially admitted for a trial period until the next Plenipotentiary Conference. Resolution 158 of the 2014 Plenipotentiary Conference in Busan instructed the Council "to review the current methodologies and study the development of a future vision for the participation of Sector Members, Associates and Academia in the activities of ITU."⁴²

Despite the justified characterization of the ITU as a trailblazer in active involvement of international organizations, private sector and now also academia in its work, arguments have been made favoring further expansion of the non-State actors' association with the Union, and more specifically favoring enlargement of the international organizations' influence on the lawmaking process. It has been suggested that "in the next thirty years it would be good to see full membership given to the major international organizations that operate space telecommunications. Such bodies have telecommunication skills, and are well financed through their revenues. Their finances and their technical competence are greater than many state members of the ITU. Their competences should be recognized and profited from by allowing them full membership of the ITU."⁴³ Although the international satellite organizations referred to have gone through the process of privatization⁴⁴ and nowadays they are not likely to seek ITU membership, the future possibility of other international organizations becoming influential enough to request admission to the ITU as full members should not be disregarded.

Fulfillment of this proposal would effectively allow international organizations to have an equal vote in the process of adoption of decisions, which, as it will be shown further, are legally binding on States. That might face significant resistance for two reasons. First, it would essentially mean equalizing the international statuses of a State and an international organization. Despite the great importance of international organizations in modern international order, traditional international law doctrine still considers international organizations 'inferior' subjects of international law compared to States, and this view is likely to retain broad support in the foreseeable future.

⁴² International Telecommunication Union, *Final Acts of the Plenipotentiary Conference (Busan, 2014): Decisions and Resolutions* (2014), at 236-37.

⁴³ F. Lyall, "The Role of the International Telecommunication Union," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 259.

⁴⁴ See, P.K. McCormick and M.J. Mechanick (eds.), *The Transformation of Intergovernmental Satellite Organizations: Policy and Legal Perspectives* (2013); P. Masambu, "ITSO, IMSO and EUTELSAT: the History, the Legal Instruments and the Legal Challenges," in International Institute of Space Law, *Proceedings of the International Institute of Space Law* (2012).

Second, it would raise an issue of 'double vote', when members of an international organization eligible for the Union membership in effect would obtain the possibility to vote twice. Acknowledging that an abundance of counter-arguments can be made, starting with the definition of an international organization that does not equate an entity to a mere sum of its members, and concluding by the emphasis on the importance of the level of financial contributions, on the one hand, and corresponding responsibilities, on the other, this issue might cause controversies and disagreement among ITU members, particularly triggering discontent of developing countries. Hence, as long as these two considerations continue to be perceived by many States as an obstacle, it is preferable to leave the ITU membership rules unchanged.

5.2.2 Secretariat

The ITU General Secretariat is one of the main organs of the Union. Functions of the Secretariat, in accordance with Article 11 of the Constitution, include coordination of the activities of the Union, reporting to the Council on policies and the Strategic Plan adopted by the Plenipotentiary Conference for the Union, coordination of the implementation of that Plan and taking all actions required to ensure the economic use of the resources of the Union. During the 2006 Antalya Plenipotentiary Conference a provision was added designating the Secretary General a legal representative of the Union.

As has been established in Chapter 1, a secretariat of an international organization possesses the following characteristics: (1) a separate organ within the structure of the organization; (2) working on a permanent basis and financed from the organization's budget; (3) and acting independently from the will of member States and pursuing in its work goals of the international organization, thus possessing an international character of work. In Chapter 1 it has been emphasized that what makes an administrative organ a secretariat is not the functions it is tasked with, but rather its composition and the extent of its international independency. The latter, however, should not be understood as independence from the organization it is serving or member-States of the organization – though a certain degree of autonomy is desirable – but as its ability to be active on the international, and oftentimes national, plane on its own behalf in representation of the organization's interests.

With respect to the ITU General Secretariat, all three criteria of a secretariat of an international organization are met. First, as per provisions of Article 7 of the Constitution, the

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General Secretariat is enumerated in the list of the organs comprising the structure of the Union. Second, Article 5 of the Convention enumerates functions of the General Secretariat, which can only be performed subject to a permanent nature of the Secretariat's functioning. For example, the first two subparagraphs of the Article provide that the Secretary-General shall be responsible for the overall management of the Union's resources, requiring him to coordinate the activities of the General Secretariat with a view to assuring the most effective and economical use of the resources of the Union. The following subparagraphs further specify the scope of the activities to be performed by the General Secretariat, including implementation of the strategic plan, preparation of a rolling operational plan of activities and so on. In other words, the General Secretariat under guidance and supervision of the Secretary-General is tasked with the 'overall management' of the Union, the task achievable only through day-to-day, everyday work.

It is one of the main functions of the General Secretariat to prepare and submit to the Council a biennial draft budget. The budget is based on information regarding expected expenditures as provided by the Sectors, members' notifications as to extent of their financial contributions in the coming financial period and financial limits laid down by the Plenipotentiary Conference, and should be prepared in cooperation with the Coordination Committee. Given the primary responsibility of the General Secretariat in the development of Union's budgets, the only reasonable conclusion is that expenditures for functioning of the Secretariat are a part of the Union's budget.

Third, both the Secretary-General and the Secretariat staff possess international character of work. Article 27 of the Constitution, providing for guarantees against undue influence on the Union staff from their home State or any other entity, coupled with privileges and immunities enjoyed pursuant to provisions of the 1947 Convention on the Privileges and Immunities of the Specialized Agencies ensure a level of independency necessary for international civil servants. Furthermore, the decision of the 2006 Antalya Plenipotentiary Conference to designate the Secretary-General a legal representative of the Union affirmed the existence of specific legal rights and obligations exercisable by the Secretary-General and by the General Secretariat, as represented by its head, on the international plane.

Thereby, a conclusion should be drawn that the ITU possesses a 'true' secretariat, or a traditional secretariat of an international organization, performing various functions, ranging from purely administrative to political tasks, staffed with employees working as representatives

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of the Union, not their home States, and possessing certain rights and obligations on the international plane.

5.2.3 International Legal Personality

An extensive institutional structure coupled with the breadth of the ITU mandate, presumably, indicates presence of international legal personality of the Union. Article 31 of the Constitution entitled 'Legal Capacity of the Union', the only relevant provision of the ITU constituent documents, is rather ambiguous in this regard. It reads: "The Union shall enjoy in the territory of each of its member States such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes." Recalling the decision of the International Court of Justice in the *Reparations Case* that concluded that the United Nations was an international person possessing international legal personality based on a similar wording of Article 104 of the United Nations Charter,⁴⁵ it is logical to suggest that the Union similarly possesses international legal personality.

The international legal personality of the ITU, alternatively, may be identified based on the four criteria outlined in Chapter 1. The Union is clearly an association of States with lawful objectives. The Sector membership being open to international organizations, private sector and now academia, as it has been argued above, does not alter the fact that 'full' Union membership is available exclusively to States, and does not amount to inclusion of non-State actors in the list of subjects 'constituting an association' for the purposes of the international legal personality identification. As it has been shown above, the ITU possesses an extensive structure of organs performing functions on behalf and for the benefit of the Union. The ITU has been created to fulfill a rather peculiar goal, a goal of coordination of telecommunications in a uniform manner. Therefore, it was entrusted with powers going beyond capabilities of any national telecommunication agency, particularly with the power to develop and adopt normative documents legally binding on both national and international levels.

While one might argue that the ITU does not have a mechanism to enforce compliance with the provisions of its documents and, thus, does not comply with the final criterion of international legal personality, the Union possesses other powers clearly exercisable on the international plane, particularly rights granted by the 1947 Convention on the Privileges and

⁴⁵ *Supra*, para. 1.3.2.3.

Immunities of the Specialized Agencies. Therefore, the Union complies with all four criteria of international legal personality and should be regarded an international legal person.

5.2.4 Term of Existence

A hundred and sixty-year history of the ITU hardly leaves any doubt as to permanent, or at the very least, long-lasting term of its existence. It should be noted, however, that the number of years of existence *per se* does not affirm an indefinite period of the intended existence of the mechanism in question – though a century and a half is an impressive duration, making any doubts strictly theoretical – since, for example, the United Nations Conference on the Law of the Sea lasted over a decade, an unusually long period for an international conference.

The constituent documents of the Union are silent on the matter of the term of existence; it is only logical to suggest that in 1992, when both the Constitution and the Convention were adopted, States saw little value in a provision asserting an indefinite period of the Union's existence. Chapter IX of the Constitution and Article 42 of the Convention elaborate the procedure of the constituent documents ratification, acceptance or approval, entry into force, accession to them, and their amendment and procedure of denunciation. With regard to the latter, the Constitution specifies that every member "which has ratified, accepted, approved or acceded to this Constitution and the Convention shall have the right to denounce them" by way of notifying the Secretary-General, which shall take effect at the expiration of a period of one year from the date of receipt of such notification. Utilizing a standard formula for membership termination, the Convention confirms a similarly traditional approach to the term of existence, which is presumed to be indefinite unless stated otherwise.⁴⁶

More importantly, the decisions adopted by the Union along with undertaken activities unequivocally confirm the long-term future-oriented attitude. Establishment of the Telecommunication Development Sector is one such step exemplifying the Union's concern regarding future sustainability of international telecommunications, which encompasses both facilitation of developing States' modernization and the broader utilization of telecommunications for a variety of humanitarian and environmental purposes. Such resolutions of the Plenipotentiary Conferences as "ITU's role in the development of

⁴⁶ *Cf.*, J. Klabbers, *An Introduction to International Institutional Law* (2002), at 320-22. (International organizations are normally created with no particular term in mind, and, generally, failure to include a dissolution clause is due to intention to create an organization with view to its performance, rather than that with a view to its demise.")

telecommunications/information and communication technologies, in providing technical assistance and advice to developing countries, and in implementing relevant national, regional and interregional projects," "The use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief" and "Next-generation network deployment in developing countries" have far-reaching goals and are aiming at providing long-lasting solutions in addressing relevant issues.

Overall, in addition to a respectful background of the Union dating back to the nineteenth century, its modern activities and initiatives, striving to use the ITU capabilities toward achievement of enduring positive effects on the global level, create a firm basis for a conclusion about an expected indefinite period of the ITU existence.

5.2.5 Binding Force of Documents Produced

The ITU is the most well known of the United Nations specialized agencies that is engaged in space lawmaking.⁴⁷ Although the Union is not, clearly, an entity specializing in regulation of space activities, such a characterization is still competent. On the one hand, the mandate of the ITU unequivocally includes functions in the space-related area, particularly allocation and allotment of frequency bands and, if relevant, associated orbits and orbital slots, and on the other, it is empowered to adopt legally binding regulations, including those pertaining to space-related activities. The ITU lawmaking authority will now be reviewed in greater detail.

The Constitution and the Convention are the constituent documents of the Union. They are supplemented by the Administrative Regulations comprised of the International Telecommunication Regulations and the Radio Regulations. These regulate international telecommunications,⁴⁸ whereas the former deal with standards and procedures in international telecommunications generally, and the latter with radio matters. In accordance with Article 54 of the ITU Constitution, they 'further complement' the Constitution and Convention, and both sets of Regulations have a treaty status. At the same time, in accordance with Article 4 of the ITU Constitution, in case of inconsistency between these documents, provisions of the Constitution shall prevail.

⁴⁷ See, N. Jasentuliyana, International Space Law and the United Nations (1999), at 6.

⁴⁸ Cf., F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 134.

State members of the ITU are required, therefore, to abide by the provisions of the Constitution, the Convention and the Administrative Regulations, to adopt adequate national legislation that includes, as the basic minimum, the essential provisions of these international documents,⁴⁹ and also to require the observance of the ITU rules by any operational agency they authorize in all telecommunication activities that relate to international services or in those capable of causing interference to the radio services of other countries. The only exemption from the binding nature of the ITU regulations and decisions is contained in Article 48 of the Constitution: State members retain freedom in regard to military radio installations.⁵⁰

The Radio Regulations, the Table of Allocation of Frequencies and the Master International Frequency Register are the documents defining the day-to-day functioning of international telecommunications; hence, it is necessary to determine whether all these documents are equally legally binding. The Radio Regulations are a part of the Administrative Regulations and, therefore, are legally binding on ITU members. At the world radio conferences ITU members "may partially or, in exceptional cases, completely revise the Radio Regulations."⁵¹ "In effect, this means that, as technical, economic and other developments change the (perceived) need for certain bandwidth, at the WRCs it will be decided to 'reserve' new frequency bands for specific services and/or 'take away' certain bandwidth from others apparently not so much in need thereof."⁵²

The cases of the Table of Allocation of Frequencies and the Master Register are not as straightforward, though "it is of increasing importance in particular with a view to the on-going globalization, commercialization and privatization of the sector to precisely determine to what extent the sovereign member states of the ITU would be legally bound by that outcome, or would rather have to consider them as guidelines to which it makes simply – usually – sense to adhere."⁵³

In 1970 Leive opined that the ITU was the most competent United Nations specialized agency to plan and coordinate orbital slots.⁵⁴ He further characterized the exercise of the

⁴⁹ *Cf.*, Y. Henri and A. Matas, "The ITU Radio Regulations and WRC-15 Challenges Related to Space Services," in *Proceedings of the International Institute of Space Law 2013* (2014), at 248.

⁵⁰ See, F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 207.

⁵¹ Art. 13(1), ITU Constitution.

⁵² F.G. von der Dunk, *Maintaining the Master International Frequency Register*, Int'l Regulations of Space Comm. (2013), at 5.

⁵³ *Id*. at 14.

⁵⁴ Cf., O.O. Ogunbanwo, International Law and Outer Space Activities (2013), at 185.

authority of the ITU through international radio conferences representing all ITU members, which allocate the usable portions of the spectrum to different communications services, as a 'legislative' and 'regulatory' process of ordering the international use of the frequency spectrum.⁵⁵ In other words, in that classic work⁵⁶ activities of the Union pertaining to allocation and presumably allotment of radio spectrum were considered 'regulatory' and 'legislative', pointing toward a legally binding nature of relevant ITU documents, particularly the Table of Frequency Allocations and the Master International Frequency Register.

The Table of Frequency Allocations, formally being based on the legally binding Radio Regulations and being an integral part thereof, constitutes binding law that legally requires adherence by member States including, as necessary, domestic legal implementation. With respect to the Master International Frequency Register the conclusion is not as forthright. The Convention and the Radio Regulations, however, do mention the Register, suggesting its legally binding nature and encouraging States and private operators to honor the rights attached to the registered frequencies and their usage.⁵⁷ The official ITU website explains that any frequency assignment recorded in the Master Register shall have the right to international recognition, meaning that other administrations shall take this into account when making their own assignments, in order to avoid harmful interference.⁵⁸

An ITU official also opined that frequency spectrum allocations and international recognition of frequency assignments rights and obligations were main elements of the ITU *legal* regime codified through the ITU Constitution and Convention, including the Radio Regulations,⁵⁹ effectively treating the Table of Allocation of Frequencies and the Master Register as integral parts of the ITU legal regime, and the legally binding Radio Regulations in particular. By and large, in the absence of legal evidence and State practice to the contrary, it might be presumed that both documents impose legal obligations on member States, though, as it

⁵⁵ Cf., M. Hofmann, "ITU Instruments under the Perspective of General International Law," in *Proceedings of the International Institute of Space Law 2013* (2014), at 329.

⁵⁶ Referring to, D.M. Leive, International Telecommunications and International Law: The Regulation of the Radio Spectrum (1970).

⁵⁷ See, F.G. von der Dunk, *Maintaining the Master International Frequency Register*, Int'l Regulations of Space Comm. (2013), at 15..

⁵⁸ Master International Frequency Register, official website of the ITU, http://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/MIFR.aspx.

⁵⁹ H. Yvon, *Orbit/Spectrum Allocation Procedures Registration Mechanism*, World Meteorological Organization Workshop (October 2002), available at

https://www.wmo.int/pages/prog/www/TEM/RFworkshop/ITUorbitSpectrumProcedures.doc.

was rightfully noted by Leive over forty years ago, "As in most other areas of international law, while rights and obligations may be established, the machinery for enforcement is either weak or non-existent."⁶⁰ And in this sense, of course, common sense and practical convenience are more persuasive arguments in favor of compliance with these documents than a legally binding nature of a document taken separately can ever be.

It has been noted earlier in the chapter that the ITU functioning, and thus its relevance, is based on the laws of physics that cannot be avoided, altered or repealed by any international agreement,⁶¹ and so adherence to the ITU regulations is triggered by the same irrefutable factors. One eminent scholar rightfully explained: "Even with their imperfections, provisions in the ITU Radio Regulations are to a great extent self-enforcing. Nations avoid these regulations only if they are prepared to have their own radiocommunications disrupted by other nations injured through that avoidance."⁶²

5.2.6 Existence of Opportunity to Modify Obligations

Striving to maintain a uniform set of general principles and obligations binding ITU members, no reservations are permitted to the substantive provisions of the Constitution or Convention or to amendments to them. In the light of the highly technical nature of the Administrative Regulations, however, reservations to these documents are admissible. The provision of the ITU Constitution Preamble, on the one hand, reaffirming "the sovereign right of each State to regulate its telecommunications," and on the other, "having regard to the growing importance of telecommunication for the preservation of peace and the economic and social development of all States," lays the ground for the divergent approaches toward reservations to the constituent documents and the Administrative Regulations. While consistency and uniformity in utilization of limited resources is essential for the preservation of peace and sustainable development, States retain sovereignty and control over their natural resources and should be provided with an opportunity to deviate from a general rule in case of necessity subject to formal communication of such a digression.

⁶⁰ D.M. Leive, *International Telecommunications and International Law: The Regulation of the Radio Spectrum* (1970), at 24, cited in O.O. Ogunbanwo, *International Law and Outer Space Activities* (2013), at 185.

⁶¹ See, F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 13-14.

⁶² J.H. Glazer, *The Law-Making Treaties of the International Telecommunication Union Through Time and In Space*, 60 Mich. L. Rev. 269 (1961-1962), at 314.

The ITU Final Acts, which are adopted as a result of the Plenipotentiary Conferences, are always accompanied by statements, declarations or reservations made by delegations on signature or sometimes when a State later transmits its notification of its ratification of the documents.⁶³ A multitude of views, opinions, reservations, declarations and other statements allow the Council, when performing actions ordered by the Plenipotentiary Conference, to be properly informed of the possible digressions and give them due consideration. At the same time, the inclusion of declarations and reservations ensures proper communication thereof between ITU members. For example, the majority of reservations and declarations to the Final Acts of the 2010 Plenipotentiary Conference reserved the right of the respective government to take any actions to safeguard its interests should any Member State not share in defraying the expenses of the Union or fail, in any way, to comply with the provisions of the ITU Constitution and Convention, or should any reservation of other Member States jeopardize its telecommunication services or lead to an increase in its financial contribution.⁶⁴

Unlike reservations, amendments to the constituent documents are permitted. In accordance with Article 55 of the Constitution, an amendment to the Constitution may be proposed by any member of the Union not later than eight months prior the opening date of the next scheduled Plenipotentiary Conference or at any time during the Conference. Adoption of an amendment requires a two-thirds majority vote of all members present, subject to the quorum of at least one-half of ITU members. The amendment enters into force "at a date fixed by the conference between Member States having deposited before that date their instrument of ratification, acceptance or approval of, or accession to, both this Constitution and the amending instrument." Again, striving to maximize uniformity of obligations among ITU members, the Constitution requires that all amendments be adopted by the Plenipotentiary Conference as a whole in the form of one single amending instrument, and that "ratification, acceptance of approval of, or accession to, both the excluded." Article 42 of the Convention establishes a procedure for amendment of the Convention, which resembles that of the Constitution with an exception of the required majority for the amendment approval, which in this case is a simple majority of a half of delegations present.

⁶³ Cf., F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 136.

⁶⁴ International Telecommunication Union, *Final Acts of the Plenipotentiary Conference (Guadalajara, 2010): Decisions, Resolutions* (2010), at 21-79.

It is notable, however, that neither document provides for a procedure in case a member fails to ratify the amendment. Although no precedents have been registered as of yet, it leaves a possibility open that different groups of members would be bound by varying sets of obligations. While the laws of physics prompt States to comply with ITU documents in most times and would likely continue doing so, the laws of physics are virtually powerless in encouraging ratification and further compliance with, for example, amendments regarding the level of financial contributions to the Union, or the composition of the Council, or procedures of frequencies' allocation, allotment and assignment. Therefore, it is important for the sake of the Union's integrity to carefully negotiate and formulate amendments, ensuring that in case contentious issues are brought up, a widely acceptable solution is found.

5.3 Evaluation and Conclusions

5.3.1 Role of ITU in Space Cooperation

Generally, following the six-criteria analysis no doubt is left that the ITU is a traditional international intergovernmental organization allowing only States as full members, enjoying an elaborate institutional structure supported by the General Secretariat, possessing international legal personality and empowered to adopt legally binding decisions, some of which allow for States' reservations. Despite the many particularities in the ITU structure and its methods of work, institutionally the Union is still a conventional international intergovernmental organization that has been adapted to meet the needs of its specific mandate and evolving landscape of international telecommunications.

As based on the ITU Constitution and Convention, "the ITU plays a fundamental role in ensuring that cross-border radio communications can operate as interference-free as possible – and this requires, in the context of satellite communication, also de facto coordination of orbits respectively orbital slots."⁶⁵ The Report of the COPUOS predecessor in 1959 postulated that availability of radio frequencies which "will not be interfered with by terrestrial radio transmissions is a matter of life and death to the progress of space activities."⁶⁶ But regulation of

⁶⁵ F.G. von der Dunk, *Maintaining the Master International Frequency Register*, Int'l Regulations of Space Comm. (2013), at 3.

⁶⁶ Report of the Ad Hoc Committee of the Peaceful Uses of Outer Space, U.N. Doc. A 4141/25 (1959), at 42.

space-based telecommunications, and particularly allocation, allotment and assignment of orbital slots are just a part of the Union's activities that were incorporated into then already-existing procedures once space telecommunications became a reality. The history of inclusion of space telecommunications into the ITU mandate will be now briefly explored, further looking at the possible roles the ITU might play in international space cooperation. As in other chapters, the analysis will be concluded by suggestions about strengths and weaknesses of the ITU mechanism of cooperation, and more particularly about the appropriateness of its institutional structure in addressing space matters today and for the years to come.

"Against this bizarre setting of spectrum availability, the radio signals of Sputnik I announced not only the dawn of Space Age but the threshold of a future in the affairs of men where demands for, and requirements of, radiocommunication promise to exceed anything known in the past."⁶⁷ Almost immediately after the first artificial Earth satellite had been launched, space began to be used for the purposes of telecommunications. "The true age of space telecommunications, however, began with the 1963 launch, by the United States, of the first geostationary satellite, Syncom 2. The growth of the space communications field was swift. Within a few years, space telecommunications systems were rapidly established, including operational navigation and maritime communication systems."⁶⁸

As soon as satellites came into picture, it was only a matter of logic, expertise and efficiency for the ITU to deal with satellite frequencies along the same lines as it dealt with radio spectrum frequency allocations. "Space telecommunications cannot be dealt with separately from telecommunications generally because of this crucial fact that all telecommunications are in competition for use of limited radiospectrum available."⁶⁹ The importance of telecommunications for space activities was reflected in one of the first United Nations General Assembly resolutions on the International Cooperation in the Peaceful Uses of Outer Space of 1961, which – in parallel to the central principles of the registration of space objects and the demilitarization of outer space – devoted an entire section to space communications and welcomed the calling of a special conference of the International Telecommunication Union to

⁶⁷ J.H. Glazer, *The Law-Making Treaties of the International Telecommunication Union Through Time and In Space*, 60 Mich. L. Rev. 269 (1961-1962), at 284.

 ⁶⁸ N. Jasentuliyana, *International Space Law and the United Nations* (1999), at 281.
 ⁶⁹ C.W. Jenks, *Space Law* (1965), at 251.

arrange for allocation of radio frequency bands for outer space activities.⁷⁰ Since technologically and logically there is no difference between a transmitter in space and one on the ground, radio frequency allocation through the ITU radio conferences, and the registration of assignments to satellites and their ground links were fitted into existing ITU procedures.⁷¹

In 1959, during the World Administrative Radio Conference, the first frequency bands were allocated to space communications and the ITU Radio Regulations were amended to include definitions of an 'earth station', a 'space station', a 'space service' and an 'earth/space service'.⁷² Four years later the Extraordinary Administrative Radio Conference was already dedicated specifically to space, thereby "extending the ITU's regulatory reach into outer space. This created a binding legal basis for an ITU outer space jurisdiction that preceded the entry into force of the 1967 Outer Space Treaty establishing the specific UN legal authorization to regulate aspects of outer space activities."⁷³ And within eight years another ITU conference specifically dedicated to space again took place.⁷⁴ From then on, the ITU has firmly taken its place among the mechanisms of international space cooperation, albeit with its traditional technology-oriented perspective.

Nowadays the Radiocommunication Sector of the ITU might not be as widely discussed, praised or critiqued as impressive and flamboyant space projects of various private entities, as the somewhat stagnating United Nations Committee on Peaceful Uses of Outer Space, as the Code of Conduct for Outer Space Activities, whose destiny remains largely uncertain; but it is the one affecting each and every space project, even if in a non-direct way. "Though the ITU regime for coordinating the use of satellite frequencies and attendant slots or orbits has undeniably worked rather well so far, it is increasingly coming under pressure from various angles as a result of the involvement of increasing numbers of, in particular, private commercial operators and the 'traditional' character of the ITU regime as an intergovernmental construct sometimes coming close to a 'gentleman's arrangement'."⁷⁵

⁷⁰ See, M. Hofmann, "ITU Instruments under the Perspective of General International Law," in *Proceedings of the International Institute of Space Law 2013* (2014), at 328.

⁷¹ See, F. Lyall, "The Role of the International Telecommunication Union," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 255.

⁷² See, F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 250.

⁷³ L.E. Martinez, "The ITU's Evolving Regulatory Role for Space Debris 'Rules of the Road': Implications for

Space Communications Regulation," in *Proceedings of the International Institute of Space Law 2013* (2014), at 279. ⁷⁴ Cf., F. G. von der Dunk, *A New 'Star' in the Firmament – Teaching Space and Telecoms Law as a Post-Graduate LL.M. Programme*, Korean J. of Air & Space L. (June 2011), at 421-22.

⁷⁵ F. Tronchetti, "Legal Aspects of Satellite Remote Sensing," in F. G. von der Dunk (ed.), Handbook of Space Law

Commercialization of outer space activities, undoubtedly, is the main challenge for the continuous effectiveness of the ITU procedures of allocation, allotment and assignment of radio frequencies and orbital slots. For example, it was noted that not so long ago that 6° of separation between satellites was considered crowded; today, in some of the most desired orbital slots, the separation has been reduced to 0.5° by the use of advanced technologies ensuring against signal interference.⁷⁶ With the growing interest in space based technologies and a full-scale commercial exploitation of these technologies by private entities, the pressure on the ITU and its ability to manage access to orbital slots and radio frequencies, at the same time ensuring interference-free work of the equipment will only grow.

The same processes simultaneously raise concerns of developing nations about availability of orbital slots in future, prompting them to challenge the 'first come – first served' principle of orbital slots and frequencies allocation used within the ITU system. By and large, this principle, being premised on the notion of equality, is justified from both practical and legal perspectives, but, surely, it is flawed in its inability to secure unrestricted access to all States – those already active in space and those that might become active in future.

The 1992 reordering of the ITU institutional structure did not involve a major review of the Union's financial arrangements. Since the 1989 Nice Plenipotentiary Conference, financial contributions of ITU members might range from a 40 unit class to a 1/16th unit class – a range in which the minimum is 1/640th of the largest. Each State voluntarily chooses the class of its contributions,⁷⁷ which is different from a more traditional practice of international organizations to calculate States' contributions based on their gross domestic product, not allowing States to pick-and-choose the level of their financial obligations. The ITU system of financial arrangements, nevertheless, leads to a similar result as the financial system generally used in other international organizations: although a particular State's contribution might amount to a quarter of the organization's budget, it still has one vote just as a State contributing less than one percent of the budget. In the end, both in the ITU and in the organizations with the gross-domestic-product-based contributions' calculation, a cluster of small contributors can wield a

^{(2014),} at 485.

⁷⁶ Letter dated 4 September 2009 from the permanent representative of Canada to the Conference on Disarmament addressed to the Secretary-General of the Conference transmitting the report of the Conference organized by UNIDIR entitled «Space Security 2009: moving towards a safer space environment» held from 15 to 16 June 2009 in Geneva, at 6, CD/1876.

⁷⁷ Art. 28 (3) of the ITU Constitution.

large voting power, without significant responsibility. "As a result, voting power is becoming grotesquely divorced from its financial implications."⁷⁸

Although no feasible alternative to such financial arrangements has been proposed within the United Nations system,⁷⁹ other international organizations, even universal ones, have adopted a weighted-voting system. "Arrangements such as those of INTELSAT and INMARSAT, where in their important organs contribution is linked to voting power, should be examined. Even a modified recourse to such strategies might be wise. Some countries are starting to consider whether the ITU is as necessary an organization as it used to be. … An ill-considered use of voting power by developing countries to give what the developed countries could consider an undue prominence to 'development' could damage, and, at worst, destroy a valuable and undersung organization, whose general utility has been obvious for one and a third centuries."⁸⁰

Another issue marring the picture of the ITU overall success is the problem of 'flags of convenience' in outer space. The notorious Tongasat case, where the government of Tonga applied for sixteen orbital slots, which later should have been sold or leased for profit instead of using them directly for satellite telecommunication services, was a singular and rather peculiar precedent, which, nevertheless, revealed weaknesses of the imprecise ITU regulations and highlighted the actual possibility of the system's misuse. In addressing these concerns, it has been proposed to create a world licensing and regulatory authority, presumably based on or working as a part of the ITU Radiocommunication Bureau, empowered to make decisions regarding the use of frequencies and orbits, taking into consideration the risk of transferring of 'flags of convenience' to space, while taking full account of the interest of the world as a whole.

"Were such a development to occur, an application for a license should be made jointly by the operator and the state which, under the Outer Space Treaty, will be responsible in law for the supervision of the activity. The regulator should be given the discretion to decline proposals, which are without substantive connection with the proposing state. It should also be able to reject proposals from states whose competence in space or radio matters is questionable. In licensing the regulator should deal with technical requirements and act in the best interests of the world as a whole, taking into due account the well-being of both the developed and the less developed

⁷⁸ F. Lyall, *The International Telecommunication Union and Development*, 23 J. Space L. 22 (1994), at 32.

⁷⁹ With the exception of the organizations of the International Monetary Fund group that have utilized a weighted voting system since their inception.

⁸⁰ F. Lyall, *The International Telecommunication Union and Development*, 23 J. Space L. 22 (1994), at 32.

states. Proposed rulings should be published, and opportunity be given to interested parties, and to those with an interest in such matters (the two are not the same), to intervene. The efficient use of the radio spectrum and of orbital positions would thereby be facilitated.⁸¹

Counter-arguments to this proposal are numerous, including the unfitness of the Bureau mandate for the task, institutional incompetency of the Bureau to undertake the laborious process of applications review and assessment, prolonged terms of applications consideration should the system be put in place, and, of course the argument of sovereignty, labeled by the author of the proposal as the 'dispositive' one. Indeed, is the organ of an international organization properly placed to evaluate the level of competence of national agencies in space and radio matters? Probably the most persuasive argument against this proposal is the arbitrariness of the criteria against which the applications for allocations should be weighted, particularly the criterion of 'interests of the world as a whole'.

At the same time, an unbalanced concentration of the ITU efforts on technical aspects of telecommunications neglecting or at lest significantly diminishing the importance of policy-related reflections in the adopted regulations, might be detrimental to the effectiveness of the promoted standards, and generally harm reputation and continuing relevance of the Union. The continuing relevance of the Union requires that policy consideration take their important role in the process of the ITU decision-making; that, however, does not amount to transformation of the ITU from a technical-oriented organization into a political international entity with technical functions.

Similar sentiment as applied to regulation of space-related activities was echoed by a prominent scholar: with the ITU focus being very much in practical-technical and operational aspects, and its inability to preclude major non-technical/operational factors from frequently impacting the use of outer space for all mankind as mandated by Article I of the Outer Space Treaty in the context of satellite operations, its traditional leadership role in the sector is increasingly challenged through other legal regimes, both internationally and domestically.⁸² Conceptually, therefore, the problem of 'flags of convenience' is much wider than it initially appeared to be when the Tongasat issue came up, revealing broader, overarching issues within

⁸¹ F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 210.

⁸² Cf., F. Tronchetti, "Legal Aspects of Satellite Remote Sensing," in F. G. von der Dunk (ed.), Handbook of Space Law (2014), at 492.

the ITU decision making practice. The exclusive ITU focus on technical issues, while ensuring the highest level of technical standards advanced by the ITU, fails to pay adequate attention to policy considerations, at first letting calculating minds behind the Tongasat case to trick itself, and now increasingly allowing "other legal regimes, both internationally and domestically," to challenge the ITU leadership role.

5.3.2 Future Role of ITU in Space Cooperation

The four named issues: commercialization that puts increasing pressure on the system of frequencies and orbital slots allocation, concerns of developing nations regarding the 'first come - first served' principle, the inequality (and maybe ineffectiveness) caused by the existing structure of financial contributions, and certain weaknesses of the regulatory framework exemplified by the 'flags of convenience' problem, - are all interconnected and all have been amplified to become a matter of concern by the same set of prerequisites. Commercialization has led to a significantly increased demand on radio frequencies and orbital slots, requiring that the process of frequencies allocation becomes as efficient as possible. Simultaneously, the greater demand aggravated the chances that this limited resource could be used up by the time developing nations create space capabilities, alerting developing States of the need to advocate for practices ensuring that a part of the resources is preserved for future generations, thereby making the voting system imperfections a possible tool in asserting their rights without the necessary degree of respective responsibility. High demand, at the same time, made the frequencies and orbital slots a highly valuable resource that can be traded for profit, incentivizing the most calculating minds to look out for gaps in the legal regime; and when they were found, though later the provisions in question were amended to prevent similar situations in future, broader questions about the adequacy of technical regulations to the policy considerations have arisen.

This brings up the question of whether the ITU has a satisfactory institutional structure to maintain its effectiveness in the changing field of space activities and preserve its leading role. It is suggested that a universal international organization is the most appropriate form of cooperation in attainment of the ITU goals as they are established in Article 1 of the ITU Convention for two reasons. The first one is rather straightforward and is common for most universal international organizations, namely, the aim at a worldwide regulatory scope of their

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activities, which obviously requires universal or almost universal participation of States. The second one is specific to the ITU. As has been noted earlier on several occasions, the nature of the ITU mandate dictates the need for an all-encompassing international regulation that supersedes, and essentially makes redundant, national regulation of the same matters. International telecommunications are only possible when they are uniformly regulated and properly coordinated to prevent interference. Laws of physics again take the center stage here, predetermining the only possible level of cooperation.

This, however, does not necessarily mean that an international organization is the only feasible form of cooperation. Hypothetically, in the absence of the ITU, a less formal mechanism of cooperation uniting a majority of States could have proved effective due to the abovementioned physical characteristics of radio signals. It has been noted earlier that even if the Table of Frequency Allocations and the Master International Frequency Register were not legally binding, it still was simple logic for States to adhere to the established allocations. Therefore, an informal mechanism of cooperation not empowered to adopt legally binding decisions might have had a chance to succeed in performing, at least partially, functions of the ITU.

Fortunately, the international community has been lucky enough to have managed to create and maintain an international organization uniting world experts in international telecommunications, developing competent regulations and empowered to adopt a broad number of legally binding documents that States are generally willing to comply with. It is advocated that a skillful well-financed international organization with lawmaking authority is the better recourse for international regulation of telecommunications, which ultimately is an undeniable necessity.

Although frequency allocations for space-based and terrestrial telecommunications are not fundamentally different from a technical point of view, they have somewhat varying policy implications. As it has been shown above, commercialization of satellite communications and corresponding increasing demand on orbital slots pose new challenges to the ITU regulatory regime as applied to space matters. These issues would have to be addressed to preserve the Union's effectiveness; at the same time, currently they have not precluded the ITU from proper performance of its functions, rather providing a basis for stimulating academic discussions. Moreover, keeping in mind that allocation of frequencies for space-based telecommunications is just a fraction of the ITU activities, and that the ITU has been tremendously successful in regulation of all means of wired and wireless international communications for over a century now, the conclusion is offered that the Union possesses an effective institutional structure to perform its broad functions, and has been victorious in achieving its main goal – harmonization of the member-States' activities and promotion of "fruitful and constructive cooperation and partnership between Member States and Sector Members' in the improvement and rational use of telecommunications of all kinds."⁸³

"Also from the perspective of space law, the ITU regime stands out as being of totally different origin and role than the UN outer space treaties. Developed long before the space treaties and long before man entered into outer space, and without any overriding focus on space activities, it soon turned out to be – and to this day remains – crucial for all space activities."⁸⁴ Hence, despite the strive of space lawyers to portray their area of specialization as absolutely unique and unparalleled in its singularity and complexity by any other area of law, in this instance the supremacy of the ITU regime must be acknowledged: while the Union could have existed without space, space activities would not have a chance the other way around.

At the same time, a progressing reliance on space-based telecommunications might result in a profound change in the ITU activities in the next decades, making space matters a primary concern of the Union, thereby demanding that appropriate institutional changes are made. "The ITU could be developed to play a world role, acting as a global F[ederal] C[ommunications] C[omission] for space matters. It has much of the infrastructure. Already it is the body through which frequencies are allocated for space and other uses. Terrestrial systems could continue to be dealt with nationally, but space systems, and terrestrial systems such as micro-wave and television, which can have impact on space, could and should be dealt with on a global basis."⁸⁵

As ambitious as it sounds, the fact that the ITU has been 'requested' to serve as the Supervisory Authority for the UNIDROIT Space Assets Protocol, in view of its long-standing experience with registration of satellite orbits and frequencies, is suggestive of a growing appreciation of the Union as a prominent player in outer space regulation, and ultimately as an effective foothold for technically-oriented space cooperation.⁸⁶ The ITU, and more specifically the Radiocommunication Sector Bureau, has been praised as a suitable candidate to act as a

⁸³ Art. 1(1) of the ITU Constitution.

⁸⁴ F. Tronchetti, "Legal Aspects of Satellite Remote Sensing," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 492-93.

⁸⁵ F. Lyall, "The Role of the International Telecommunication Union," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 264.

⁸⁶ Cf., F. Tronchetti, "Legal Aspects of Satellite Remote Sensing," in F. G. von der Dunk (ed.), Handbook of Space Law (2014), at 493.

registry for security over space assets, which would be required under the Protocol. "At present the Bureau possesses data in the Master International Frequency Register on satellites and their orbits. It would not be an immense step also to record security interests in satellites, in appropriate instances even before a satellite is launched. Alternatively, if the operation of registry is consigned to a commercial entity, as has been done under the Aviation Protocol, the ITU should certainly be the body to act as its supervisor."⁸⁷

Overall, the ITU is a remarkably effective international organization that has proved its leadership more than once. Although the Union and its institutional structure are not flawless, as it has been shown above, it is notable for its ability to develop and adapt. Being founded as a relatively small organization tasked with overseeing just one method of communication, over a hundred and fifty years of its existence it has undergone at least five major reorganizations, expanding its mandate when new means of communication were created, and restructuring when old structures ceased to be adequate. Timely inclusion of non-State actors in the decision-making process; structuring and scheduling of activities within the Sectors, working groups, assemblies, world and regional conferences; swift adaptation of the legal regime to new challenges: all these are exemplary of the Union's ability to keep up with the changing environment it regulates and exists in.

The ITU institutional system "encompasses both the legal reality of sovereign states and the practical reality of operations, which in most cases are now undertaken by private operators interested in technical/operational transparency and consistency of regulation above everything else – and tries to reconcile the two."⁸⁸ While unsolved issues remain, and probably it would take several years for them to be properly addressed – after all, the ITU is a large universal international intergovernmental organization, which, no matter how adaptive and flexible it is, is still a big bureaucratic machine – the case of space matters, which almost burst into the well-settled ITU processes in the late 1950s, contributed to the growing need for changes in the 1980s, and now again are pushing toward rearrangements necessitated by commercialization of international telecommunications, showed with all clarity that the ITU mechanism is a reliable tool of international cooperation.

⁸⁷ F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 21-22.

⁸⁸ F.G. von der Dunk, *Maintaining the Master International Frequency Register*, Int'l Regulations of Space Comm. (2013), at 13.

"There can be no doubt that the ITU will continue. If it did not exist something very like it would have to be invented. World-wide standardization of the technical and administrative sides of electrical communication systems has had immense benefits."⁸⁹ And, of course, the laws of physics will persist to be the ultimate trigger for uniform regulation of international telecommunications.

⁸⁹ F. Lyall, International Communications: The International Telecommunication Union and the Universal Postal Union (2011), at 193.

Chapter 6. International Civil Aviation Organization

6.1 Overview

At the invitation of US President Franklin Roosevelt fifty-two States convened in Chicago from November 1 to December 7, 1944 for an International Civil Aviation Conference. In the invitation the President said: "I do not believe that the world today can afford to wait several years for its air communications. There is no reason why it should. As we begin to write a new chapter in the fundamental law of the air, let us all remember that we are engaged in a great attempt to build enduring institutions of peace. These peace settlements cannot be endangered by petty considerations, or weakened by groundless fears. Rather, with full recognition of the sovereignty and juridical equality of all nations, let us work together so that the air may be used by humanity, to serve humanity."¹ Currently ongoing extensive discussion of the need and perspectives of space traffic regulation makes this invitation all the more contemporary, albeit with a modification of the subject under discussion.

In this chapter the International Civil Aviation Organization (ICAO) and its role in outer space activities regulation will be reviewed. The Organization was created to regulate and coordinate activities pertaining to international civil aviation, and therefore space transportation regulation does not easily fall within its functions.² Inclusion of this area into the ICAO powers, hence, should be rigorously thought through. To that end the structure and internal procedures of ICAO will be reviewed, paying special attention to the methods and procedures employed in establishing international standards of civil aviation safety. Further, the scope of prospective space traffic management regime will be reviewed to evaluate whether ICAO is indeed the best choice to undertake space transportation regulation. Additionally, within the framework of the 'purpose-result' analysis it will be decided whether the original ICAO purposes and goals correspond with the goal of the space traffic management regime.

¹ R. Abeyratne, *International Civil Aviation Day: Towards Global Peace and Development*, Daily News, 8 December 2011, available at http://archives.dailynews.lk/2011/12/08/fea01.asp.

² Preamble of the Convention on Civil Aviation states: "Therefore, the undersigned governments having agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically."

The International Civil Aviation Organization came into being on April 4, 1947 upon entry into force of the Convention on International Civil Aviation, commonly known as the Chicago Convention after the city where it was negotiated and drafted in 1944.³ During the deliberations four approaches to the new organization were presented: Australia advocated the internationalization of all civil aviation, the United Kingdom proposed an organization with extensive economic and technical authority, the United States supported freedom of air and procompetitive environment, and Canada recommended an organization with broad economic authority regulating international air services.⁴ As a result, ICAO, an international organization with technical standard setting responsibilities and general supervisory functions, was established. Such an outcome does not strike as a true compromise since three out of four proposals supported a broader mandate of the future organization, mainly in the economic area. All economic issues, except for fares, rates and tariffs, which are to be regulated multilaterally by industry conferences subject to government approval, are to be decided on a bilateral level. Basically, the outcome can be summarized as follows: air must remain a free and competitive environment, but technical guidance is necessary to facilitate growth of the market of air transportation by way of ensuring safety and stability.

The Convention's preamble enunciates that development of international civil aviation can greatly help to create and preserve friendship and understanding among nations, that cooperation between nations and peoples is desirable, and that the pronounced principles will facilitate establishment of safe and orderly international air transport services on the basis of equality of opportunity, and sound and economical operation. Article 44 of the Chicago Convention sets forth the objectives of the Organization that include development of principles and techniques of international air navigation and fostering of the planning and development of international air transport in order to ensure safety and orderly growth of international civil aviation, encourage the arts of aircraft design and operation for peaceful purposes, encourage the development of airways, airports, and air navigational facilities, and generally to promote the development of all aspects of international civil aeronautics.⁵

³ Convention on Civil Aviation, signed December 7, 1944; entered into force April 4, 1947, 15 U.N.T.S. 295.

⁴ Cf., L. Weber, International Civil Aviation Organization: An Introduction (2007), at 1-2.

⁵ Other objectives include: to meet the needs of the peoples of the world for safe, regular, efficient and economical air transport; to prevent economic waste caused by unreasonable competition; to insure that the rights of contracting States are fully respected and that every contracting State has a fair opportunity to operate international airlines; to avoid discrimination between contracting States; to promote safety of flight in international air navigation.

The wording of Article 44 underlines the predominantly technical orientation of the Organization's activities, however, leaving room for effective policy-oriented regulation as well. While the "development of principles and techniques" is unquestionably a technical task, for example, the "fostering of the planning and development of international air transport in order to encourage the development of airways, airports, and air navigational facilities" coupled with provisions of Chapter XV outlining rights of the ICAO Council to facilitate and effectively take part in construction and development of airports, leaves an opportunity for actions on behalf of ICAO in the areas of economy and development.

This inference is further supported by the characterization of the Organization's mandate in historical perspective as the one focused primarily on the rebuilding of international civil aviation after the devastating results of the Second World War, which effectively halted international civil aviation.⁶ Promotion of safety and security were undoubtedly the central element in rebuilding international relations in the area, in restoration of mutual trust and understanding. Technical measures without more, however, were hardly capable of achieving these goals. The crucial element here is the authoritativeness of the established standards of safety and security, and ultimately the authoritativeness of the Organization itself. The latter has been achieved by the highest level of the Organization's technical specialists, by constant monitoring of technology requirements, and by continuous dialogue between the Organization and member-States. In justification of this statement, the ICAO structure and employed methods of work will now be explored.

The Organization has three primary permanent organs: the Assembly, the Council and the Secretariat. The Assembly is a collective organ, where each member-State has one representative and one vote. It meets triennially to elect its President and other officers, to elect members of the Council, to vote on the budgets and to review expenditures. It also considers proposals for the Convention amendment, has the right to delegate necessary powers and authority to the Council for the expedient discharge of the duties of the Organization, and is entitled to deal with any other issues that have not been specifically assigned to the Council. As per the Convention's provisions, all decisions require a majority vote in favor, however, in practice a formal vote is a rarity and most decisions are made by consensus.⁷

⁶ See, A.D. Groenewege, Compendium of International Civil Aviation (1999), at 18.

⁷ *Id.* at 19.

The Council has administrative, quasi-legislative and judicial functions. Within its administrative competence it manages finances of the Organization, appoints the Secretary General and other Secretariat personnel, collects and disseminates information on air navigation and air transport services, and submits annual reports to the Assembly.⁸ The quasi-legislative functions include development and adoption of international standards and recommended practices, and for convenience, their designation as Annexes to the Convention.

To facilitate and expedite discharge of the Council's functions, in accordance with Article 54, the Council established an Air Transport Committee and a number of other committees, including the Finance Committee, the Technical Support Committee and the Legal Committee. The latter was established by the Assembly in 1947 and is tasked with advising the Assembly and the Council on legal matters. The Committee is comprised of representatives of all member-States and adopts decisions by a majority vote. The primary responsibility of the Committee is preparation of drafts of international conventions or protocols. Although the Convention does not mention any competences of the Organization over development and adoption of treaties, organs of the Organizations, and primarily the Legal Committee are responsible for drafting of international law documents, while from a legal point of view the drafts are being adopted by the Diplomatic Conferences convened under ICAO auspices.⁹ This is another quasi-legislative function performed by the Council, albeit one established by longstanding practice and not the provisions of the Convention.¹⁰

Finally, the Council is also charged with judicial functions. It adjudicates disputes between contracting States relating to the interpretation or application of the Convention and the Annexes. "In practice and in accordance with the ICAO Rules for the Settlement of Differences, the Council has, to the extent possible, acted as a mediator between the parties which have

⁸ Articles 54 and 55 of the Convention on International Civil Aviation.

⁹ *Id.* at 37.

¹⁰ Using this procedure the following conventions were drafted and adopted: Convention on the International Recognition of Rights in Aircraft, signed on 19 June 1948; Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, signed on 7 October 1952; Convention, Supplementary to the Warsaw Convention, for the Unification of Certain Rules Relating to International Carriage by Air Performed by a Person Other than the Contracting Carrier, signed on 18 September 1961; Convention on Offences and Certain Other Actions Committed on Board Aircraft, signed on 14 September 1963; Convention for the Suppression of Unlawful Seizure of Aircraft, signed on 16 December 1970; Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation, signed on 23 September 1971; Convention for the Unification of Certain Rules for International Carriage by Air, signed on 28 May 1999; Convention on International Interests in Mobile Equipment, signed on 16 November 2001.

brought complaints before the Council."¹¹ While the goal is to achieve a settlement, the Council has not hesitated to take clear procedural decisions in adversarial situations.¹² But it has been suggested that the Council seems much better suited to mediation than to its adjudicative function. This is so because mediation is assigned to a five-member committee instead of the hearing in front of the whole Council, and mediation is normally required in disputes between sovereign States. The typical dispute requiring adjudication, by contrast, according to the representative of Canada at the Chicago Conference, "would involve complaint by Country A of a violation by an airline of country B,"¹³ and disputes of such sorts are better dealt with on a bilateral and technical level. Overall, there is no unanimity with regard to the dispute settlement mechanism evaluation; at least one distinguished scholar opined that the Council was ill-equipped for this role.¹⁴

The third permanent organ is the Secretariat headed by the Secretary General, which will be discussed in detail below.

Article 59 entitled "International Character of Personnel" states that the President of the Council, the Secretary General and other personnel "shall not seek or receive instructions in regard to discharge of their responsibilities from any authority external to the Organization." It further urges contracting States to respect international character of personnel and not to attempt to influence them in discharge of their official responsibilities. Article 60 requires that the Organization's officials be accorded immunities and privileges "which are accorded to other public international organizations." Due to the ICAO status of the United Nations Specialized Agency, the ICAO personnel enjoy privileges and immunities in accordance with the 1947 Convention on the Privileges and Immunities of the Specialized Agencies.¹⁵

6.2 Six-Criteria Analysis

¹¹ L. Weber, International Civil Aviation Organization: An Introduction (2007), at 24.

¹² E.g., The Decision of the Council to reject the Preliminary Objections of the 15 Member States of the EU in: *United States v. 15 States of the European Union* (2000), C-DEC 161/6.

¹³ Proceedings of the International Civil Aviation Conference, Chicago, Illinois, November 1 – December 7, 1944, at 480. Available at the ICAO official website http://www.icao.int/ChicagoConference/Pages/proceed.aspx.

¹⁴ See, D. Goedhuis, *Questions of Public International Air Law*, 81 Recuel de Cours 205 (1952), at 222-24.

¹⁵ Convention on the Privileges and Immunities of the Specialized Agencies, signed November 21, 1947; entered into force December 2, 1948, 33 U.N.T.S. 261. *See* also, A. Reinisch, *Convention on the Privileges and Immunities of the United Nations; Convention on the Privileges and Immunities of the Specialized Agencies*, United Nations Audiovisual Library of International Law (2009), www.un.org/law/avl.

6.2.1 Membership/Participation

ICAO is a States-only organization. Although the Chicago Convention does not explicitly limit membership solely to sovereign States, Articles 91 through 93 *bis* establishing procedures of adherence and admission to the Convention are based on the premise that only sovereign States are eligible for membership. Article 92 states: "This Convention shall be open for adherence by members of the United Nations and States associated with them, and States which remained neutral during the present world conflict." Also provisions of Articles 93 and 93 *bis* condition membership in ICAO to the membership in the United Nations. Since only sovereign States are eligible for United Nations membership,¹⁶ the same conclusion is true for ICAO.

Further, the State-only ICAO membership precludes international organizations from becoming members. In 2003 the European Community, being the regional integration organization that had been conferred upon by its members part of their sovereign functions and powers in civil aviation, requested admission to ICAO with the right to vote. "In the view of Articles 91 to 93 *bis* and the structure of the Convention, this is not possible de lege lata."¹⁷ The only possibility was to amend the Convention so as to allow membership of international intergovernmental organizations, or, narrower, of regional economic integration organizations. Due to the stringent procedure for the Convention amendment set forth in Article 94, "it has been regarded as preferable on the part of the European Community not to seek membership in ICAO, for the time being, but to participate in ICAO's work through a resident observer."¹⁸

6.2.2 Secretariat

The Secretariat is one of the three main organs of ICAO. Organizationally, the Secretariat is divided into the Air Navigation Bureau, the Air Transport Bureau, the Legal Affairs and External Relations Bureau, the Bureau of Administration and Services, and the Technical Cooperation Bureau. The Secretariat is located in the ICAO headquarters, the location of which in accordance with Article 45 of the Convention was to be determined at the final meeting of the Interim Assembly of the Provisional International Civil Aviation Organization set up by Interim

¹⁶ Article 4 of the Charter of the United Nations states: "Membership in the United Nations is open to all other peace-loving *states* which accept obligations contained in the present Charter and, in the judgment of the Organization, are able and willing to carry out these obligations." [emphasis added]

 ¹⁷ L. Weber, *International Civil Aviation Organization: An Introduction* (2007), at 17.
 ¹⁸ Id.

Agreement on International Civil Aviation signed at Chicago on December 7, 1944. The headquarters of the Organization and thus the ICAO Secretariat are located in Montreal, Canada.

In 1945, taking into consideration that "the operational and technical problems inherent in different parts of the world varied considerably, it was logical that the planning and implementation of the required ground services should be carried out on an area or regional basis - the geographical limits of which should be such as to encompass air route stages having a certain degree of homogeneity, and therefore entailing a somewhat uniform set of requirements,"¹⁹ ten original regional offices of the Secretariat were established. The current regional structure was established in 1980 and today it includes nine regions, which have been delimited based mostly on the coverage of the international air route network. To provide the most adequate coverage and communication with regional offices, the Secretariat regional offices have been established in Bangkok, Cairo, Dakar, Lima, Mexico, Nairobi and Paris. An estimated 700 employees work at the ICAO Secretariat, whereas approximately 575 are located in the headquarters, and the rest are positioned in the Secretariat regional offices.²⁰

Overall, secretarial functions within the ICAO structure are performed by the Secretariat, which meets all the characteristics of an international organization's secretariat. It is a separate organ within the Organization's structure with an elaborate structure of its own, created to facilitate performance of its comprehensive functions. It works on a permanent basis and is financed from the general ICAO budget.²¹ As stipulated in Article 59 of the Convention, the Secretariat shall discharge its responsibilities guided solely by internal interests of the Organization, thus possessing an international character of work.

6.2.3 International Legal Personality

ICAO possesses both national and international legal personality. Article 47 is the basis for the former: "The Organization shall enjoy in the territory of each contracting State such legal capacity as may be necessary for the performance of its functions." This wording, as per

¹⁹ International Civil Aviation Organization Secretariat, Regional Offices, http://www.icao.int/secretariat/Pages/rohistorical-background.aspx.

²⁰ See, L. Weber, International Civil Aviation Organization: An Introduction (2007), at 32.

²¹ E.g., in 2013 expenditures for Management and Administration were 16.145.000 CAD,

http://www.icao.int/annual-report-2013/Pages/financial-results-financial-higlights-2013.aspx.

International Court of Justice precedent, might also be regarded as a basis for establishment of international legal personality.²²

International legal personality of the Organization might also be identified using the fourcriteria analysis proposed in Chapter 1. It is undisputed that ICAO is an association of States with lawful objectives that has three independent organs, which are not subject to the authority of any other organized communities, as provided by Article 60. Legal powers of the Organization lie primarily in the field of development and adoption of technical international standards and recommended practices to ensure safety, security, development and lately also sustainability of international civil air transport. While the end results of the Organization's activities – safety, security, development and sustainability of international civil aviation – can be qualified as goals of each ICAO member-State, neither member-State taken separately is capable of achieving these goals acting unilaterally. National aviation standards will always remain a matter of internal law, which, of course, might be duly noted and considered by international community should they prove to be effective, but are highly unlikely to be uniformly followed on the universal level. Thereby, the conclusion is drawn that the legal powers of the Organization and its members are distinct and distinguishable, putting ICAO in compliance with all four criteria necessary for identification of international legal personality.

It has also been established in Chapter 1 that certain rights, including the right to conclude international agreements are indicative of an existing legal personality of an international organization. Article 65 of the Chicago Convention provides for the right of the Council on behalf of the Organization to enter into agreements with other international bodies "for the maintenance of common services and for common arrangements concerning personnel and, with the approval of the Assembly, may enter into such other arrangements as may facilitate the work of the Organization." While there was little doubt regarding ICAO's status as the subject of international law, the above considerations establish in a conclusive way its existing international legal personality.

6.2.4 Term of Existence

A thorough examination of the need to provide for international regulation of commercial aviation commenced almost simultaneously in the United States and the United Kingdom in

²² *Supra*, at para. 1.3.2.3.

1942. As the war situation improved, negotiations between the two countries revealed that a solution of problems of international civil aviation was not only highly desirable, but also achievable. In 1944, in Chicago an agreement on some basic principles was achieved. "And on one issue almost everyone agreed: there was a fundamental need for a *permanent* international organization to oversee the healthy development of international air travel."²³

Proposals with respect to the need to create an international aviation organization had been voiced since the moment the Wright brothers succeeded in the first powered flight, and by 1944 an organization like ICAO "just made sense."²⁴ By that time, except for opponents in the commercial sector, it was widely understood that only a permanently functioning international organization could achieve the necessary level of regulatory stability in the civil aviation sector. Nowadays, the necessity of a permanently working ICAO, with its elaborate structure and highly qualified personnel, has only become clearer. Civil aviation, despite its century-old history, continues to evolve and develop. It was estimated that in 2014 for the first time we saw more that 100,000 flights per day.²⁵

With these statistics in mind, taking into consideration the breadth of ICAO activities, which include safety, air navigation capacity and efficiency, security, economic development of air transport and environmental protection as main strategic objectives, and recalling the seventy-year history of the Organization, the conclusion is drawn that ICAO has been created for an indefinite period.

6.2.5 Binding Force of Documents Produced

Two organs within the ICAO structure are authorized to adopt documents, which have a varying level of binding force. The first decision-making organ is the Assembly. Strictly speaking, Assembly decisions, which are made in the form of a resolution, are legally non-binding. In the absence of a clear statement to the contrary in the constituent documents, it is presumed that decisions of plenary organs of international organizations fall within the 'soft law' category.²⁶ It has been noted, however, that ICAO Assembly resolutions "are more than

 ²³ D. MacKenzie, *ICAO: A History of the International Civil Aviation Organizations* (2010), at 13.
 ²⁴ Id. at 24.

 ²⁵ Air Transport Action Group, Aviation Benefits Beyond Borders, April 2014, available at http://aviationbenefits.org/media/26786/ATAG_AviationBenefits2014_FULL_LowRes.pdf.
 ²⁶ Cf., H.J. Hahn, "International Organizations, Resolutions," in Encyclopedia of Public International Law, Vol. 2 (1997), at 1333-43.

hortatory. They are designed to set global norms in a field where there is widespread acknowledgment of the need for ordered conduct. They are adopted by a plenary body, with the shared expectation that States will follow them to the extent that they are able to. They clearly are not binding, but they have a sufficient channeling effect to place them well above the low point on a continuum of normative instruments ranging form non law to true law.²⁷⁷ The practice also evidences that regardless of uncertainty with regard to the resolutions' legal force, "the persuasive nature of the material used in such resolutions, the high degree of expertise on which it is usually based, and the general acceptance at the time of adoption usually have the effect of ensuring their implementation.²⁸ Hence, it is more or less settled that the Assembly's recommendations are not legally binding *strictu sensu*, but are very authoritative and should not be regarded as pure recommendations not bearing any legal significance.

As noted above, the Council also has a decision-making power, which should be characterized as a 'quasi-legislative' authority. Some authors suggest that these functions are purely legislative;²⁹ but, legally speaking, there is no evidence to support this broad conclusion. The Council is empowered to adopt two types of documents: international standards and recommended practices. Article 37 expressly states that member-States undertake to "collaborate in securing the highest practicable degree of uniformity" in regard to the adopted international standards and recommended practices. Such phrasing indicates that these documents are to be complied with only to the 'extent possible' and not at all times.

The recommended practices by virtue of their designation, and also due to the Convention's silence about the procedure for States' notification of deviations from these, are considered merely suggestions. In practice, the recommended practices and the international standards have been clearly distinguished: while the main body of Annexes typically consists of the international standards, any paragraphs of the text which have the status of a recommended practice will be visibly set out.³⁰ Determination of the legal force of the international standards is more complicated.

²⁷ F.L. Kirgis, "Aviation," in O. Schachter and C.C. Joyner (eds.), *United Nations Legal Order*, Vol. 1 (1995), at 840.

²⁸ L. Weber, International Civil Aviation Organization: An Introduction (2007), at 20.

²⁹ E.g., L. Weber, *International Civil Aviation Organization: An Introduction* (2007), at 22; R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011), at 40-41.

³⁰ Cf., L. Weber, International Civil Aviation Organization: An Introduction (2007), at 35.

On the one hand, *travaux préparatoires* contain a statement that "the Annexes are given no compulsory force," and Article 54 of the Chicago Convention states that standards and recommended practices are designated as Annexes *for convenience*. On the other, it has been pointed out that such a debate is purely academic, and regardless of their binding nature in the treaty law sense, provisions in the Annexes are highly authoritative in practice and are generally followed for the sake of safety and security.³¹ At the same time, Article 12 in the relevant part pronounces: "Over the high seas, the rules in force shall be those established under this Convention." Since rules applicable over the high seas are contained in Annex 2 to the Convention, thereby becoming a part of the Convention, and are promulgated in the form of an international standard, not a recommended practice, these rules are deemed mandatory, and "ICAO does not recognize any right to opt out of these standards."³²

Therefore, there is only one instance where compliance with documents adopted by the Council is indeed mandatory, namely with respect to rules applicable in airspace over high seas.³³ It is then only logical to characterize functions of the Council as quasi-legislative: it is empowered to adopt binding documents pertaining to one area, and most other documents are being complied with on a voluntary basis despite their 'soft law' status.

Pursuant to Article 37 each contracting State is required to collaborate in securing the highest practicable degree of uniformity in regulations and practices. Since extensive collaboration and compliance with the established standards have not always been the case, thus posing threats to safety of civil aviation, in 1998 the Assembly established the Universal Safety Oversight Audit Program effective January 1, 1999. The program, among others, sanctions regular, mandatory, systematic and harmonized safety audits carried out by ICAO. While establishment of this Program does not entitle the Organization to enforce compliance with the adopted standards and recommended practices, it incentivizes States to comply with relevant documents to the greatest extent possible and underlines the importance attached to uniform compliance with the ICAO documents.

³¹ *Cf.*, R. Abeyratne, *Regulation of Commercial Space Transport: The Astrocizing of ICAO* (2015), at 146-47. ³² F.L. Kirgis, "Aviation," in O. Schachter and C.C. Joyner (eds.), *United Nations Legal Order*, Vol. 1 (1995), at 833.

³³ "Even the SARPs do not represent 'hard law' in view of the condition stipulated in the Convention. They do not possess a legal force equal to that of the Convention and they are not subject to the international law of treaties." M. Milde, *International Air Law and ICAO* (2008), at 164.

By and large, despite the limited scope of documents that are legally binding in the strict sense of the term, the ICAO documents possess significant political value due to the high quality of the promoted regulations and thanks to the measures taken by the Organization itself to ensure wide support and compliance.

6.2.6 Existence of Opportunity to Modify Obligations

Due to varying legal force of the documents adopted within the ICAO framework, different standards for modification of obligations imposed by these documents exist. Article 38 establishes the right for the State to opt out of an international standard, even the one already in force, in case it deems compliance with the standard impractical and duly notifies the Organization. In one instance, however, as noted above, opting out is prohibited: Article 12 pronounces standards pertaining to aviation over the high seas mandatory and prohibits any departures. The recommended practices, along with documents adopted by the Assembly, are legally non-binding and no formal procedure for modification of their provisions is established. It is understood, though, that derogation from their provisions is permissible at any time.

The Chicago Convention, creating the legal basis for cooperation and establishing general obligations of State-members, set forth a noteworthy procedure of Convention amendment. Article 94 stipulates that any amendment "must be approved by a two-thirds vote of the Assembly and shall then come into force in respect of States which have ratified such amendment when ratified by the number of contracting States specified by the Assembly. The number so specified shall not be less than two-thirds of the total number of contracting States." Recalling that ICAO has 191 members as of January 1, 2015, any amendment can come into force only after its ratification by 128 States, which quite likely would take years.

Article 27 of the Vienna Convention on the Law of Treaties states: "A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty." Thereby, internal procedures are irrelevant on the international plane, and the fact that a State cannot properly ratify an international treaty that it has consented to be bound by has no effect on this State's international obligations. But the Chicago Convention has made entry into force of an international obligation dependent on compliance with national ratification procedures. And that, undoubtedly, made amending the Convention more difficult. But the authors pointed out that the subsequent record of amendments to the Convention showed that, broadly speaking, its

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provisions were well suited for their purpose, and only two amendments to substantive provisions of the Conventions were made over its seventy-year history.

The first substantive amendment inserting a provision on lease, charter and interchange of aircraft in Article 83 *bis* was proposed in 1980 and entered into force seventeen years later. The second amendment, which inserted a provision prohibiting the use of force against civil aircraft in flight except in cases of self-defense pursuant to Article 51 of the United Nations Charter, was proposed in 1984 and entered into force fourteen years later.

Another consideration should be added in this regard. Paragraph (b) of Article 94 states: "If in its opinion the amendment is of such a nature as to justify this course, the Assembly in its resolution recommending adoption may provide that any State which has not ratified within a specified period after the amendment has come into force shall thereupon cease to be a member of the Organization and a party to the Convention." In effect this procedure forces a difficult choice on the member unwilling to accept an amendment, for the only alternative available is to leave the organization. This is a notable provision that nowadays effectively forces a State, should the procedure enunciated in paragraph (b) be utilized, to ratify the amendment notwithstanding the reasons that might have precluded a State from doing so. This outcome is the result of the universal nature of ICAO, which currently supervises and regulates all international civil air transport; and possible exclusion from ICAO serves as a strong deterrent for opposition. Such a procedure, moreover, ensures that an anomalous situation detrimental to the safety of international civil aviation, where members have different obligations, is avoided.³⁴

Overall, the stringent amendment procedure contributed to the Convention's stability. It forces States to introduce amendments only when they are absolutely necessary and when a broad support in favor of the amendment is viable. Article 94 disciplines, but probably it also limits: the over-complexity of the procedure might as well compel States to abstain from introducing an amendment even if it might have enhanced quality of the Convention's provisions.

6.3 Evaluation and Conclusions

³⁴ Cf., M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, Law and Public Order in Space (1963), at 970-71.

6.3.1 ICAO and Space Traffic Management

It is not the goal of this chapter to scrutinize and evaluate effectiveness of the ICAO mechanism of cooperation for international regulation of international civil aviation, though it is doubtful that much criticism as to its success can be reasonably offered. The ensuing analysis will focus on the examination of the ICAO mechanism appropriateness for achievement of the goal that the academic writings have been suggesting handing over to the Organization, namely the regulation of space traffic, including the suborbital flights.³⁵

It should be noted that currently functions in the realm of space traffic regulation are performed both on national level – by way of relevant States' efforts to ensure that planned launches and reentries of spacecraft do not interfere with scheduled flights of aircraft and with launches and reentries of spacecraft planned by other States – and international level, primarily in the regulatory sphere, for example, by the International Telecommunication Union in its activities to ensure interference-free use of radio frequencies. These activities, while achieving the goal of orderly and interference-free operation, are performed on an *ad hoc* basis and will continue to be effective, and also feasible, as long as space launches continue to be infrequent. A centralized and uniform system of space traffic regulation will become a necessity when space launches, including sub-orbital flights, become more regular.

It should be recalled that in the period immediately preceding and following the launch of Sputnik I ICAO was often though of as the body most naturally qualified to undertake regulation of activities in space. Two factors, however, rapidly emerged asserting ICAO's limitations and ultimately inability to comprehensively regulate outer space activities. First, activities in space involve a complex of political, military, economic, technical and legal considerations far exceeding the competence of either ICAO or any other specialized international organization, thus, pointing toward the United Nations with its general mandate as a more viable alternative. Second, at that time the Soviet Union was not a member of ICAO. "These factors, rather than

³⁵ See, R. Abeyratne, Regulation of Commercial Space Transport: The Astrocizing of ICAO (2015); F. Lyall and P.B. Larsen, Space Law: A Treatise (2009); Panel Discussion on Session 4: "Common Issues in Air and Space Law: Envisaging Future Air Space Applications – The Examples of Registration and Liability," in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), 'Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century (2006); C. Contant, P. Lala, K.-U. Schrogl, ""Space Traffic Management" and Future Space Regulations," in M. Benkö (ed.), Essential Air and Space Law (2005); R. Jakhu, T. Sgobba, P. Dempsey (eds.), The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space? (2011); M.J. Rycroft, The Space Transportation Market: Evolution or Revolution? (2000); G. Lafferranderie, "Basic Principles Governing the Use of Outer Space in Future Perspective," in M. Benkö (ed.), Essential Air and Space Law (2005); R. Jakhu and R. Battacharya, "Legal Aspects of Space Tourism," in Proceedings of the International Institute for Space Law (2002)

any evaluation of the relationship between the flight in the atmosphere and activities in space, have determined the allocation to the United Nations rather than to ICAO of the major responsibility for the international regulation of activities in space."³⁶

In the early years of the space era authors were pointing out the continuing concern of States for the regime of airspace as it might be affected by outer space activities. Such an interest was "based upon two important considerations: first, airspace and outer space in fact represent a physical continuum, and the effective utilization of outer space will require a complimentary use of airspace; second, the conduct of activities in space may have important consequences for the internal value processes of the territorial communities on earth. In the more advanced exploitation of our spatial environment, the most obvious significance of the regime of airspace for all states derives from the fact that spacecraft in order to reach, or return from, outer space must pass through airspace."³⁷ Apparently, we have arrived at the stage of 'more advanced exploitation', and regulation of airspace-outer space transit has emerged as one of the prominent issues instigating broad academic, and to some extent practical, discussions.

Authors have been pointing out that in the future a proper system of space traffic management would be desirable. This system has been envisioned as possessing three elements. First, air-traffic control should coordinate transit of a spacecraft through a national airspace on launch and reentry. Second, in addition to airspace control measures, a system ensuring safe launch and reentry through areas used by low orbit communications satellite systems should be established. Third, "various orbits are better suited for certain purposes than others: polar and near-polar orbits are useful for certain types of remote sensing, the geostationary orbit is excellent for telecommunications and direct broadcasting. It would make sense were the use of these orbits rationalized so that the best can be got from space."³⁸

The International Astronautics Academy Cosmic Study of 2006 suggested the following definition of the space traffic management: "The set of technical and regulatory provisions for promoting safe access into outer space, operations in outer space and return from space to Earth free of physical of radio-frequency interference."³⁹ Therefore, space traffic management goes beyond control of routes taken by space objects and adequate coordination of routes with those

³⁶ C.W. Jenks, *Space Law* (1965), at 70-71.

³⁷ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 244.

³⁸ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 300.

³⁹ C. Constant-Jorgenson, P. Lala, K.-U. Schrogl (eds.), *Cosmic Study on Space Traffic Management*, International Academy of Astronautics (2006), at 10.

used by aviation, but also ensures that movements of space objects are free of radio frequency interference, an element considered negligible in the air traffic regime. Just as the air traffic management, the space traffic management regime should be grounded on physical characteristics of the regulated area, along with profound understanding of the physics of movement and operation in outer space. The review of these technical considerations,⁴⁰ however, makes it abundantly clear that the space traffic management differs from that pertaining to civil aviation in a multitude of ways. To name just one example, which underlines the dramatically different nature of space flights compared to aviation, a spacecraft is significantly less maneuverable compared to an aircraft and is rarely manned, meaning that its operation requires going through a somewhat extended chain of commands.⁴¹

An extensive system of space traffic control, as described above, further complicated by the precarious physics of space flights, obviously goes beyond the expertise of ICAO and would require major reshaping of the existing system. So the question is whether the ICAO mechanism as it has been established by the Chicago Convention, is a sound starting point for creation of the space traffic management system, and whether its mechanism can indeed be adapted to take over new functions. At this stage, some assert that the space conventions do not apply to suborbital flights.⁴² "Now this is something that has to be dealt with one way or the other. And some help may come from ICAO for the simple reason that after it has briefly been mentioned at the recent Legal Subcommittee meeting of COPUOS, ICAO has put 'the regulation of suborbital flights' on its agenda."⁴³

Despite the seeming remoteness of space activities from the current ICAO mandate, ICAO has already dealt with space-related issues. In 1998 by Resolution A32-20 the ICAO Assembly instructed the ICAO Council and the Secretariat "to consider the elaboration of an

⁴⁰ For an excellent review of physics underlying the activities, particularly operation, directing and monitoring of space objects on orbit, which must be thoroughly considered in the course of the space traffic management regime establishment *see*, J.D. Rendleman, B.D. Green, *Space Traffic Management Regime Needs and Organizational Options*, 58th IISL Colloquium on the Law of Outer Space, Technical Programme "Legal Issues of Space Traffic Management," IAC-15.E7.4.3. Not yet published as of November 2015.

⁴¹ See, F.G. von der Dunk, *Space Traffic Management: A Challenge of Cosmic Proportions*, 58th IISL Colloquium on the Law of Outer Space, Technical Programme "Legal Issues of Space Traffic Management," IAC-15.E7.4.2. Not yet published as of November 2015.

⁴² See, Panel Discussion on Session 4: "Common Issues in Air and Space Law: Envisaging Future Air Space Applications – The Examples of Registration and Liability", in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), *'Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 251.

appropriate long term framework to govern the operation of Global Navigation Satellite Systems, including consideration of an international convention for this purpose."⁴⁴ That could have been done using Annex 10 to the Chicago Convention, which is the vehicle for establishing navigation standards for both Global Navigation Satellite Systems.⁴⁵ The Thirty-Second ICAO Assembly also adopted the Charter on Rights and Obligations of States Relating to Global Navigation Satellite Systems Services. "This Charter is not legally binding; it is not part of Annex 10 to the ICAO Convention. However, as the resolution of an Assembly with worldwide competence within its field, it may be considered to be significant."⁴⁶

While ICAO has a certain degree of experience in regulating space-related matters, space traffic management constitutes a substantially different area, both in subject of regulation and in scope of the required regulation. In the early years of the space era, for example, a prominent scholar suggested that should launches take place from the territories with high density of air traffic – apparently, he was concerned with substantially similar issues as the contemporary scholars advocating the need for space traffic management – a regional arrangement akin to the Eurocontrol would become necessary.⁴⁷ Hence, despite the affection of that period toward ICAO as a possible space regulator, it was not considered as a plausible candidate to take over the role of space and air traffic management; evidently, the task is indeed a far stretch from traditional ICAO functions.

If the definition of the space traffic management proposed by the International Academy of Astronautics is accepted,⁴⁸ creation of an effective space traffic management system heavily depends on delimitation of airspace and outer space. While absence of a statutory delimitation has not so far caused any practical problems in outer space activities, in case of suborbital flights this can become a problem when a reentry of reusable space vehicles is concerned.⁴⁹

⁴⁴ Resolution A32-20 adopted at the 32nd Session of the ICAO Assembly "Development and elaboration of an appropriate long-term legal framework to govern the implementation of GNSS," available at http://www.icao.int/meetings/amc/ma/assembly%2032nd%20session/resolutions.pdf.

 ⁴⁵ Annex 10 to the Convention on International Civil Aviation, "Aeronautical Communications", 6th Ed., October 2001, available at http://www.icao.int/Meetings/anconf12/Document%20Archive/AN10_V2_cons%5B1%5D.pdf.
 ⁴⁶ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 407.

⁴⁷ See, C.W. Jenks, Space Law (1965), at 81.

⁴⁸ C. Constant-Jorgenson, P. Lala, K.-U. Schrogl (eds.), *Cosmic Study on Space Traffic Management*, International Academy of Astronautics (2006), at 10.

⁴⁹ See, C. Contant, P. Lala, K.-U. Schrogl, ""Space Traffic Management" and Future Space Regulations," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 247.

It is doubtful that ICAO is properly placed to elaborate the delimitation of airspace and outer space. Article 1 of the Chicago Convention states: "The contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory." Quite clearly, States find great value in comprehensive, continuing and exclusive jurisdiction over the airspace over their territories. It has been suggested that the competence accorded to States should be fashioned like the occasional exclusive competence only for the purposes of protecting "the unique vital interests of the state in the appropriate functioning of the community processes on its territory,"⁵⁰ though there is no indication that States are, or will be in any foreseeable future, willing to give up even a fraction of their authority over territorial airspace. Practice is the most telling evidence of how jealously States have guarded their sovereign rights and how passionate States have been in application of these rights.⁵¹ Hence, there is little doubt that complete national sovereignty over territorial airspace will persist.

This provision is clearly at odds with Article II of the Outer Space Treaty rejecting sovereign rights over outer space, including the Moon and other celestial bodies. And although ICAO has experience of regulation in areas devoid of State sovereignty, namely of air traffic within international airspace over the high seas,⁵² the prominent function of ICAO is to regulate national civil aviation practices and coordinate them for international air traffic. In other words, every international flight takes off from a national territory, ends on a national territory, and over its course might cross dozens of national airspaces. And while part of the route might indeed lie in international airspace, international aviation has been shaped into its modern state due to compatibility of national air regimes and coordination of national activities – and dealing with States' sovereignty over their airspaces is the most complicated task and the basis for the ICAO's success. Against this background, regulation of civil air transportation in the airspace over the high seas does not seem to be the most challenging task ICAO is facing.

Thereby, ICAO is used to working in the environment completely different from that of outer space, in an environment premised on the complete sovereignty of a State over its airspace. Regulation of outer space activities would require a different mindset. Moreover, the delimitation

⁵⁰ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 279.

⁵¹ Cf., M. Lachs, The Law of Outer Space: An Experience in Contemporary Law-Making (2010), at 55.

⁵² Cf., R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011), at 121 ("Thus ICAO is responsible to regulate safety and navigation over high seas, covering some 72% of the totality of the Earth's surface."). It seems that the percentage of the Earth's surface covered by seas is somewhat irrelevant for characterization of the work being done by ICAO.

of airspace and outer space is a legislative kind of task, and as it has been determined earlier, ICAO only possesses quasi-legislative powers in the area of technical regulation. So while ICAO might be a good choice for the space traffic management regulation – whether it is indeed so or not will be discussed in details below – it is definitely inappropriate for dealing with the underlying definitional matters.

6.3.2 ICAO as Space Traffic Management Organization: Alternatives

Two recent scholarly works have tackled the issue of whether ICAO is an appropriate mechanism for the space traffic management regulation, and they have arrived at somewhat divergent results.⁵³ Both works, however, acknowledge that though realistically commercial suborbital flights and intensifying space tourism are the interests for the second half of the century, space traffic issues are better to be addressed "proactively than retroactively before threats and hazards to public safety become intolerable; now is the appropriate time."⁵⁴

On the one side, it has been suggested that ICAO should regulate space traffic due to the need to have harmonious coordination of air traffic and space traffic. Both means of transportation use airspace, therefore air routes should be established for both.⁵⁵ So it has been concluded, "undoubtedly, the ideal solution to accommodate space traffic management and other space safety requirements would be to amend the Chicago Convention thereby expressly extending ICAO's jurisdiction over space."⁵⁶

But there is a legal obstacle to such a scenario, namely that ICAO does not have a mandate to involve itself in anything other than civil aviation.⁵⁷ Nevertheless, some degree of ICAO involvement would be necessary because, as it has been remarked above, a spacecraft inevitably crosses airspace in the part of its journey, and thereby traffic management of aircraft and 'transit' spacecraft would be required. It has been correctly noted that "prior to any work of a

⁵³ R. Abeyratne, *Regulation of Commercial Space Transport: The Astrocizing of ICAO* (2015); and R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011).

⁵⁴ R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011), at xiii.

⁵⁵ Cf., R. Jakhu and R. Battacharya, "Legal Aspects of Space Tourism," in *Proceedings of the International Institute* for Space Law (2002), at 112.

⁵⁶ R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011), at xvii.

⁵⁷ Cf., R. Abeyratne, Regulation of Commercial Space Transport: The Astrocizing of ICAO (2015), at 7.

policy nature commencing on the subject of commercializing space travel, a sustainable and sustained regime that governs species of transportation has to be established."⁵⁸

Not only the definition of outer (and correspondingly air) space should be established, but also the definition of an aerospace space object, the definition of a space tourist, and the definition of a suborbital flight should be elaborated; safety, licensing and other technical standards should also be agreed upon. An international organization with broad technical mandate can operate effectively only in a legally stable environment, meaning that the scope *ratione materiae* of its authority should be defined with precision. Lax definition of the subject matter of organization's powers would inevitably lead to lax technical regulations – a clearly undesirable result. Thus, just as aviation-related definitions were included in the text of the Chicago Convention, space-related definitions should necessarily become a part of the Convention's glossary should ICAO become responsible for the space traffic management.

It has been earlier concluded that ICAO is not properly placed to deal with the legislative-regulatory tasks. Thus, at least this part of the space traffic management should be handed over to a more appropriate entity. At this point there seem to be more questions than answers. Basically, there are only two feasible options for the elaboration of the needed definitions: the United Nations Committee on Peaceful Uses of Outer Space or a specialized diplomatic conference. The first option appears to be an obvious choice, but the inability of the Committee to produce a single binding document in the last three decades makes one doubt if this case is any different. Furthermore, an agenda item "Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union" has been on the Legal Subcommittee's agenda for several years now without any visible results, at least with regard to the first part of the item. In the light of the continuing criticism of COPUOS for its overcomplicated and not especially effective methods of work, there is no evidence that the legislative standstill can be easily overcome for the sake of development of the space traffic management system. A diplomatic conference, therefore, might prove more effective, but again States' reluctance to take on any more legal obligations pertinent to outer space activities would

likely halt this initiative as well. In the end, there is no definitive answer as to which organ and how is supposed to take on this task.

Other alternatives that fall short of precise delimitation of airspace and outer space have been suggested. One is to amend the ICAO Annexes and redefine the term 'aircraft' to include aerospace vehicles, so that when they fly in the airspace used by civil aircrafts, the rules of safety and navigation are the same.⁵⁹ Without getting into details, there is one major objection to this approach: if the goal is to draw the space traffic management system, equation of an aircraft and a spacecraft does not achieve the goal since it does not create any new system that would pertain to launches and reentries; it simply extends aviation rules to space flights, which are materially different. From a theoretical point of view, a new definition covering both aircraft and spacecraft within the ICAO legal framework without the definition of outer space would effectively extend airspace legal regime into outer space, at least in part pertaining to space objects. That would interfere with existing space law with respect to space objects as such and would jeopardize the principles of non-appropriation, of freedom of exploration and prohibition of placement of weapons of mass destruction. Obviously, that is not something States would be willing to do.

The second option is for ICAO to promulgate a new Annex on "Space Standards" based on Article 37 precedent that now allows ICAO to adopt not only safety standards, but also security and environmental standards.⁶⁰ In addition to the theoretical complications entailed in this approach as outlined above, the authors acknowledge that this path would also require "a certain international regulatory body" to provide uniform standards for national certification of space launch systems and vehicles, and their navigation through airspace. First, it is not clear which international regulatory body might undertake this task, and second, the breadth of standards that would have to be promulgated, including terms of registration, airworthiness certification, pilot licensing and operational requirements,⁶¹ is so great that adoption of the new Annex apparently would not get us closer to the creation of the space traffic management system.

The third option is for ICAO to define the limits of airspace by amending an Annex. It is acknowledged that such a change would most likely require amendment of the Chicago Convention first, which, in accordance with Article 94, is a laborious process. Inclusion of the

⁵⁹ See, R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011), at 62.

⁶⁰ *Id*. at 63.

⁶¹ Concept of Sub-Orbital Flights Working Paper, International Civil Aviation Organization Council, 175th Session, May 30, 2005 (C-WP/12436), para. 2.3.

airspace definition in the Chicago Convention does not support the case of transforming ICAO into a regulator of both civil aviation and suborbital space flights because it would only more firmly establish ICAO as a purely aviation-oriented organization, and extension of its mandate, which is by itself a contentious issue,⁶² would be all the more problematic. By and large, no feasible method to fill in the definitional vacuum has been proposed yet.

Setting aside the question of airspace and outer space delimitation, there are basically two approaches to the role of ICAO in the space traffic management. They both are premised on the central role of ICAO in regulation of space flights, but envision different methods in adaptation of the existing regime to the new challenges. The first one suggests that ICAO will continue to work using the same methods and principles, its work will continue to be based on the Chicago Convention, albeit some structural adjustments along with addition of new Annexes would be required. This view explains that "instead of establishing a new international space flight organization, it is argued that the same ends could be achieved, as a starting point, simply by extending the mandate of ICAO to the region of space up to including the geosynchronous orbit."⁶³ Extension of the mandate would provide "an unequalled wealth of organizational experience in establishing an internationally encompassing and deeply rooted safety culture such as that which has been instrumental in making civil aviation the great success of which we are all aware."⁶⁴ Acknowledging the logic behind the argument, the question should be asked: why then the extension of the ICAO mandate should serve as 'a starting point'? Is that supposed to be an intermediary solution for the time being, or should the transformation somehow continue in the future? Unfortunately, no answer is provided.

The regulatory model for this proposal presupposes three elements: development of a safety oversight operating model, establishment of an organizational framework and constitution of a safety certification process. The first part includes design of a comprehensive permanent safety oversight regulatory regime, likely by way of its inclusion in Annex 6, that national space authorities would implement. The second element presupposes creation of ten new organs within the ICAO mechanism based on the Article 37 powers. The third element is aimed at vesting with ICAO the authority to monitor the space standards' and recommended practices'

⁶² Cf., R. Abeyratne, Regulation of Commercial Space Transport: The Astrocizing of ICAO (2015), at 7.

⁶³ R. Jakhu, T. Sgobba, P. Dempsey (eds.), *The Need for an Integrated Regulatory Regime for Aviation and Space: ICAO for Space?* (2011), at 120.

⁶⁴ *Id*. at 125.

implementation.⁶⁵ That can be done by way of extending the ICAO's jurisdiction over space, but that is not the best solution due to the lengthy amendment process of the Chicago Convention, which might last up to twenty-five years.

Instead, the authors suggest using 'residual powers' set forth in Article 37, but in this case it seems to be a stretch. Article 37 is entitled "Adoption of International Standards and Procedures", but the contextual reading of the Convention does not reasonably allow making a conclusion that it mandates to regulate *all* "matters concerned with the safety, regularity, and efficiency of air navigation as may from time to time appear appropriate." If an expansive interpretation is favored, then in principle ICAO might extend its jurisdiction to military conflicts – they undoubtedly jeopardize safety of aviation, prevention of terrorism – the tragedy of September 11, 2001 involved civil aircraft, even regulation of explosives trafficking since improper transportation might also endanger safety and security of civil aviation. But it is indeed unlikely that anyone would ever suggest any of these readings of Article 37 of the Chicago Convention. Therefore, amendment of the Convention remains the only legal opportunity for implementation of the envisioned plan.

The other approach, despite being substantively similar to the one described above, is very critical of the idea of including space traffic management into the existing ICAO structure. The proposal to bring commercial space transportation in the Chicago Convention by amending the instrument is considered "similar to saying that rail transport can be brought into the United Nations Convention on the Law of the Sea by just amending the Convention. The 19 Annexes to the Chicago Convention are entirely on civil aviation and there is no practical way in which it can be amended, or added on to or revised, or new Annexes adopted under the Chicago Convention (which is entirely and exclusively on civil aviation) to cover such areas as licensing of spaceports, human space flight, space traffic management, safety of personnel and astronauts and security."⁶⁶

In the following discussion, however, the author becomes more complimentary. It is suggested that ICAO does not have the structure to sustain the entirely different regime of transport. So if it is the intent to bring in the regulation of commercial space transportation within the ICAO structure, it should be done through a separate multilateral treaty. The

⁶⁵ Id. at 128-39.

⁶⁶ R. Abeyratne, Regulation of Commercial Space Transport: The Astrocizing of ICAO (2015), at vi.

organization could be renamed into the International Aerospace Organization, and it should have separate funding for two means of transportation, and necessarily have the relevant expertise.⁶⁷ "It is not prudent to lump air transport and space transport together by amending an existing [Chicago] Convention, however attractive that might be as a quick fix. Both are very different fields of transport and should be covered by separate multilateral instruments. At the least, any involvement of ICAO should be separate from its responsibilities pertaining to civil aviation under the Chicago Convention."⁶⁸

Overall, this approach is premised on a fairly unspecified notion of ICAO having to undergo a whole system change to justify its performance and values based structure. The bottom line is the "need for change in the mindset of the Organization, from its service role to a role of implementation and assistance. The human factor is an essential consideration in this metamorphosis. The key and the starting point, however, is to recognize the need for the transition, which ICAO has already done. The next step is to recognize that ICAO needs its peoples' best efforts, both individually and collectively."⁶⁹ While throughout the book the author has explained the changes that have to be made to change the 'mindset' from service to implementation and assistance, nowadays it is not at all obvious that ICAO has already recognized 'the need for transition'. Two Assembly resolutions adopted thirty years apart⁷⁰ can hardly serve as a reliable indicator in such a delicate matter as recognition of the need for substantive changes. And the next step that is directed at the ICAO workers as "good stewards of ICAO's business," is a long way from the international legal realm.

By and large, the last proposal is still based on the premise of the Chicago Convention serving as a starting point for all substantive changes that have to be introduced in order to make a separate treaty governing the space traffic management an appropriate instrument for its purposes. Outline of these changes requires a book-length document, so probably starting *de novo* should not be completely disregarded. At the same time, it is not to be doubted that "the technical Annexes to the Chicago Convention are one reason why ICAO has been so successful in international lawmaking. Through use of these Annexes, the organization has been able to

⁶⁷ Id.

⁶⁸ *Id.* at 15.

⁶⁹ Id. at 143.

⁷⁰ The ICAO Assembly at its 16th Session in 1968 adopted Resolution A 16-11 "Participation by ICAO in Programmes for the Exploration and Use of Outer Space"; The ICAO Assembly at its 32nd Session in 1998 adopted Resolution A32-20 "Development and Elaboration of an Appropriate Long-Term Legal Framework to Govern the Implementation of GNSS".

separate the political and technical facets of international civil aviation. To a large degree, uniformity in all technical and navigational aspects of international civil aviation has been achieved. This has, generally, made civil aviation safe, regular, efficient and economical."⁷¹ ICAO, like other successful United Nations organizations such as the International Telecommunication Union, has successfully managed to separate political from technical aspects.⁷²

It has been concluded that the ICAO standards and recommended practices under current international law cannot be directly applied to space vehicles, so "it has been proposed to use a regulatory mechanism similar to standards and recommended practices in space law, as in general space law no such arrangements exist and similar issues like certification of vehicles to guarantee minimum safety levels are likely to arise."⁷³ Hence, utilization of technical standards is a feature that should be translated onto the space traffic regime. The Working Paper of the ICAO Council, however, suggests that with respect to sub-orbital flights pertinent Annexes to the Chicago Convention might not come into force for many years or it may be found most practical not to extend application of Annexes at all.⁷⁴ Deviation from the procedure of using technical standards that proved exceptionally successful in performance of ICAO functions, would be detrimental on many levels: generally, there is little value in handing over the sub-orbital flights regulation to ICAO if its standards are not applicable to sub-orbital flights; more specifically, lax regulation of sub-orbital flights might well undermine the organization's authority in regulation of airspace flights. Thus, the named way of regulation – if it can be called regulation at all – should be avoided.

ICAO has significant experience and expertise in development of technical standards in international civil aviation that have been almost uniformly complied with. More so, the ICAO mechanism of regulation proved efficient for aviation, an area where States exercise sovereignty over their national airspaces. Regulation of space traffic, thus, can and should be based on the system that has proved effective for air transportation, borrowing the practices and methods highly praised by scholars and practitioners alike; but that does not mean that it should be copied

⁷¹ N. Jasentuliyana, International Space Law and the United Nations (1999), at 385-86.

⁷² See, G. Lafferranderie, "Basic Principles Governing the Use of Outer Space in Future Perspective," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 195.

⁷³ *Id.* at 198.

⁷⁴ Concept of Sub-Orbital Flights Working Paper, International Civil Aviation Organization Council, 175th Session, May 30, 2005 (C-WP/12436), para. 5.3.

from it or be absentmindedly transplanted to a different type of transportation. Moreover, the Working Paper correctly noted that current commercial activities envisage sub-orbital flights departing from and landing at the same place, which may not entail crossing of foreign airspaces, thereby, making pertinent Annexes to the Chicago Convention not amenable to their regulation.⁷⁵

In addition to straightforward transferal of space traffic management to ICAO, other alternatives have been suggested. The US Federal Aviation Administration suggested creation of a dedicated international organization, the International Space Flight Organization. It is envisioned as an internationally sanctioned organization that is the focal point for collaboration and information exchange for orbital or hypersonic point-to-point flights requiring international planning and notification to mitigate contention for airspace.⁷⁶ Scholars, however, considered this idea as premature. "There is no need to establish an organization which would address and regulate all aspects of air space activities and the use of air space. In the long run, however, it could be considered whether a new Convention would be required to establish the rules applicable to "space tourism" and other hybrid activities. Such a legal instrument indeed could learn from the experience gathered by ICAO while taking into account the specifics of the activities and the knowledge of UNCOPUOS and other institutions."⁷⁷

There is another approach to the issue of space traffic management. An international intergovernmental agreement building on and eventually replacing parts of the existing treaties has been suggested as a viable option. This agreement should include provisions for liability, should be open only to sovereign States, but its provisions should be made applicable to private activities as well through national licensing regimes. "This international intergovernmental agreement could comprise a legal text, which cannot be changed easily, and technical annexes, which can be adapted more easily."⁷⁸ This ambitious project is envisioned to be completed by 2020. After this date, however, the proposal becomes even grander: this agreement along with other existing space treaties could be replaced by a comprehensive Outer Space Convention, whereas COPUOS, the United Nations Office for Outer Space Affairs and ICAO apparently be

⁷⁵ *Id.* at para. 6.3.

⁷⁶ See, M.J. Rycroft, *The Space Transportation Market: Evolution or Revolution?* (2000), at 225.

⁷⁷ G. Lafferranderie, "Basic Principles Governing the Use of Outer Space in Future Perspective", in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 199-200.

⁷⁸ C. Contant, P. Lala, K.-U. Schrogl, "Space Traffic Management" and Future Space Regulations," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 251.

merged into the International Outer Space Organization.⁷⁹ The need for the space traffic management regulation is an unusual justification for the suggestion to create a universal space organization akin to the International Maritime Organization, which have been advocated since the 1960s by both Soviet and American scholars,⁸⁰ though without gaining broad support.

While the first stage of the proposed approach might be justified in the light of the discussed issue, it is hard to see how the International Space Organization might be necessary for the development of the space traffic regime. Recalling the earlier discussed tendency of avoiding legally binding documents in the area of outer space activities, the so-called Washington Consensus, even the first part of the proposal does not present itself as a feasible one. While technical standards, or even better recommendations, are a realistic way to regulate space traffic, a legally binding agreement that covers issues beyond specific traffic management questions is unlikely to gain support among spacefaring nations. Some authors opined that due to States' sensitivity with regard to the access to national airspace, a full ICAO for space, which would necessarily deal with matters of access to and usage of national airspace for outer space launches, is not likely,⁸¹ and thus a not-only-technical-oriented solution is even more impractical.

Alternatives falling short of a government-centered space traffic management system have also been brought into discussion. One such approach is for commercial operators of satellites to provide their own space traffic management by way of contracting out the capability to one or more international concerns or nonprofit entities.⁸² The first downside of this option is the need for commercial entities providing space traffic management to heavily rely, at least initially, on government provided data due to insufficiency of their own data. The second shortcoming is the inadequacy of commercial mechanisms for addressing proprietary and

⁷⁹ *Id.* at 252.

⁸⁰ E.g., L. Martinez, "Weaving a Legal Web in Space: Factors for Globalizing Governance," in "*Project 2001*" – *Legal Framework for Commercial Use of Outer Space* (2001), at 307; Каменецкая Е.П. Тенденции и перспективы сотрудничества государств в освоении космоса в рамках международных организаций [*Tendencies and Perspectives of Cooperation of States in Outer Cpace Exploration within International Organizations*] // Труды Объединенных Научных Чтений, посвященных памяти выдающихся советских ученых – пионеров освоения космического пространства. – М., 1980. С. 52. *See* also, The Soviet Union proposal of the World Space Organization outlining principles and functions of the Organization, General Assembly Records of 14 November, 1985, UN Doc. A/SPC/40/3.

⁸¹ Cf., F. Lyall and P.B. Larsen, Space Law: A Treatise (2009), at 562.

⁸² See, J.D. Rendleman, B.D. Green, *Space Traffic Management Regime Needs and Organizational Options*, 58th IISL Colloquium on the Law of Outer Space, Technical Programme "Legal Issues of Space Traffic Management," IAC-15.E7.4.3, at 17. Not yet published as of November 2015.

security concerns, which are at the higher level in the area of outer space activities.⁸³ Acknowledging benefits of this approach, it is suggested that as of now it is not a feasible option and is not likely to become one in the foreseeable future precisely due to traditionally high national security concerns.

6.3.3 Space Traffic Management: A Proposal

Judge Manfred Lachs eloquently illustrated that 'mechanical transfer' of institutions from one environment to another is of little value: "It may lead to distortions and even seriously stunt the development of the new branch of law. Yet despite Lord Mansfield's warning ("There is nothing in law so misleading as a metaphor or an analogy") or Einstein's caveat that analogies have been "a source not only of the most fruitful theories, but also of the most misleading fallacies," the analogical method cannot utterly be discarded. One has simply to beware of its pitfalls and seek to grasp reality as comprehensively as possible in proceeding from tried systems to the construction of new ones."⁸⁴ By and large, a separate, fairly idiosyncratic, regime of orbital and sub-orbital flights should be developed, albeit necessarily compatible with, and to some extent premised on, the international regime of civil aviation.

A good starting point, thus, is the proposal made by Jasentuliyana: "In seeking to provide technical standards and practices for space activities, it does not seem practical to substantially revise the existing space treaties for this purpose. There are several reasons for this. First, technical solutions are better handled by technical experts in a technical body rather than by lawyers in diplomatic conferences. ... Second, just as in the case of international civil aviation, space technology is rapidly and continuously changing. It would be highly impractical to convene diplomatic conferences every time regulations required updating. This could be achieved competently and quickly by way of space Annexes. The Annexes could update technical progress on a continual basis, as opposed to existing legal instruments or creation of new instruments, which could take years."⁸⁵ The idea of including space traffic regulation in the ICAO mandate by way of amending the Chicago Convention or development of a separate treaty, however, should be rejected.

⁸³ Id. at 18-19.

⁸⁴ M. Lachs, *The Law of Outer Space: An Experience in Contemporary Law-Making* (2010), at 20-21.

⁸⁵ N. Jasentuliyana, International Space Law and the United Nations (1999), at 380.

The Conference on the Regulation of Emerging Modes of Aerospace Transportation held in 2013 discussed the possibility of ICAO involvement in regulation of space commercial transportation. The majority of attendees generally agreed that ICAO standards and recommended practices of the Annexes to the Chicago Convention might be extended to apply to commercial space travel.⁸⁶ It is, however, unclear whether the existing legal framework should be applied only to ensure safety of suborbital flights during their airspace journey segment, or whether it can be applied to regulate all stages of suborbital flights, both in airspace and outer space. It seems that the former would be less complicated from a legal perspective, though the latter might be preferable should indeed suborbital flights become as frequent as currently airspace flights are. Finally, the applicability of these standards to orbital flights has not been even touched upon.

Whatever route is preferred, and if ICAO is chosen to be the primary regulatory organ, amendments to the Chicago Convention are inevitable. Article 94 of the Chicago Convention established a complicated procedure for the Convention amendment, which requires, first, two thirds support in the Assembly, and second, ratification of the amendments by two thirds of member-States. While fulfillment of the first requirement seems practically achievable, implementation of the second might take years and years. In practice it means that consent of 128 States is necessary, and that might take in the range of fifteen to twenty-five years. But that is not the main issue here. The main concern is that the Chicago Convention and ICAO have worked well for international community, they have ensured civil aviation safety and stability; but once the system is being redrawn, albeit by way of extending ICAO mandate and adopting rules for the new area of regulation, the old system of civil aviation regulation might be jeopardized.

On the one hand, as described above, both orbital and suborbital flights have an airspace flight segment, thereby new rules would have to be tailored in a way to establish safety and security of space-bound flights and at the same time adapt it to the existing civil aviation rules. Hence, one way or the other, the existing rules would have to be touched upon and would have to be alternated, maybe specified to a certain extent. On the other, introduction of the new area of regulation would inevitably require adaptation of the ICAO structure, internal procedures,

⁸⁶ *Cf.*, R. Abeyratne, *Regulation of Commercial Space Transport: The Astrocizing of ICAO* (2015), at 60. For more information about the Conference see, http://www.mcgill.ca/iasl/press/2013-lachs-conference-emerging-modes-transportation.

including, most importantly budgeting and financing rules. Neither the ICAO Secretariat, nor its technical staff, possessing professional knowledge in civil aviation, but having virtually no knowledge of space flights' particularities, is properly placed to take the plunge into commercial space transportation regulation. New structures and procedures would have to be incorporated in the existing ICAO system, thus requiring reassessment, again to a certain extent, of the structure that has worked effectively and efficiently for over seventy years.

Against this background, amendment of the Chicago Convention should be undertaken only if wide support of States is secured, when there is a practically achievable compromise that can satisfy all parties. Otherwise, not many results would be achieved in the space traffic regulation, but a reliable system of the civil aviation regulation might be put in jeopardy. In other words, ICAO would have to undergo the whole system change if it is to take on the role of a space traffic regulator. In the current situation, wide, virtually uniform support would be hard to achieve, especially with regard to the contentious issue of outer space activities regulation.

There is another reason prompting to reconsider the desirability of transforming ICAO into 'ICAO for civil aviation and space'. The Chicago Convention was drafted over seventy years ago, and despite the great success of the created system in regulation of civil aviation, it is an international document from a 'previous epoch'. In 1944 the world was going through horrors of the Second World War and the world economy was structured in a whole different way. From an international legal perspective, in 1944 the United Nations was non-existent, international organizations did not play the role in international relations they are playing now, and, of course, Sputnik I had not yet orbited the Earth for hundred-and-eight minutes on its elliptical path. That is not to say that the Chicago Convention has become archaic and obsolete, but as has been mentioned above, it took over hundred pages to describe changes that have to be made to make the Chicago Convention appropriate for this new area. New challenges require new approaches.

The question of international intergovernmental organizations membership in ICAO has not been discussed in either of the analyzed works, despite their significant role in international space activities. The 2003 precedent of the European Community's request to be admitted to ICAO membership evidences that international organizations are expressing will to participate more actively in international cooperation on all levels. With respect to outer space activities, where international organizations are major players, and where for many States cooperation through international organizations is the only way to explore and use outer space, that is even

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more true. So membership of international organizations in the entity regulating space traffic would be only logical and beneficial. If ICAO were such an entity, as discussed above, inclusion of international organizations as its members would require amending the Chicago Convention. Initiation of the amendment procedure would postpone adoption of necessary provisions for decades, while it is generally agreed that the space traffic management system should be put in place as soon as possible.

Another important issue to consider is the chances that a new legally binding agreement extending the mandate of ICAO to include the space traffic management would be adopted by a majority, or more accurately two-thirds of States. Separately, it has to be considered whether those States active in space would support the necessary document. The case of the Code of Conduct for Outer Space Activities, whose destiny is still uncertain,⁸⁷ patently shows the challenges of arriving at accord when the document touches upon regulation of outer space activities notwithstanding its legally non-binding nature. A legally binding document regulating outer space activities has not been adopted for over three decades. Consequently, a probability of adoption of a legally binding document regulating space traffic in the short-term, and maybe mid-term perspective is very low, especially given the inextricable connection of the necessary regulation with sovereign rights over national airspace.

And, of course, as it has been explained above, 'hard law' regulation of space traffic would inevitably require delimitation of airspace and outer space. The United States has repeatedly stipulated that delimiting outer space is not necessary because no legal or practical problems have arisen in the absence of such a definition. Moreover, whatever definition is ultimately agreed upon would be arbitrary at worst, or, at best, be constrained by the current state of technology.⁸⁸ And in the absence of support from the major spacefaring nation any agreement can hardly be achieved.

Another consideration that should be duly reflected on is the practical implications of addressing issues governed by one legal regime by an organization working within a legal regime governed by substantively different principles. In other words, what are the implications

⁸⁷ Supra, para. 9.1.

⁸⁸ See, e.g., Statement by The Delegation of the United States of America on Agenda Item 6 'Definition and Delimitation of Outer Space and the Character and Utilization of the Geostationary Orbit', Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space at its 40th Session, (Report of the Legal Subcommittee on its Fortieth Session, held in Vienna from 2 to 12 April 2001, A/AC.105/763), available at http://www.state.gov/s/l/22718.htm.

of sovereignty-oriented ICAO dealing with matters, where the primary legal principle is rejection of sovereign rights? "Because of the autonomous operation principle, which indicates that ICAO should apply its constitutional framework – its procedures and rules – there exists a danger that ICAO will prioritize air law over space law. Or similarly … ICAO may grant priority to norms of space law, but it will do so according to its own administrative objectives and purposes, thus risking the subjugation of the object and purpose of space law regime to ICAO's ethos."⁸⁹ That is clearly an undesirable outcome.

Based on these considerations, it is suggested that regulation of space traffic would be best achieved using a legally non-binding mechanism of cooperation with broad State participation based on the 'best-effort' principle akin to the Committee on Earth Observation Satellites.⁹⁰ This proposal, however, does not reject the great value that ICAO, being an unquestioned expert in airspace navigation, can bring to the table. Quite to the contrary, due to the inextricable connection of airspace navigation and space traffic management in the airspace segment of space flight, it is advocated that ICAO should be, first, closely involved in the establishment of the future mechanism, and, second, maintain constant contact and coordination throughout its work.

As a first step, therefore, it could be considered to request ICAO to study the legal and technical issues related to the introduction of the space traffic management regime in close cooperation with other relevant institutions such as COPUOS and the International Telecommunication Union.⁹¹ ICAO could play a significant role in coordination of air and space traffic,⁹² provide valuable insight and ensure that the space traffic regime is fully compatible with the air traffic regime. It was noted over fifty years ago that while the Chicago Convention and its Annexes could not be directly applied to space instrumentalities, they were suggestive of the matters that should be covered by appropriate space regulations.⁹³ ICAO is a highly specialized technical-oriented international organization that has been successfully regulating

⁸⁹ C. Stotler, *The Effects of the Fragmentation of International Law on Aerospace Regulation*, 58th IISL Colloquium on the Law of Outer Space, Technical Programme "7th Nandasiri Jasentuliyana Keynote Lecture on Space Law and Young Scholars Session," IAC-15.E7.1.5. Not yet published as of November 2015.

⁹⁰ *Supra*, para. 8.1.

⁹¹ See, G. Lafferranderie, "Basic Principles Governing the Use of Outer Space in Future Perspective," in M. Benkö (ed.), *Essential Air and Space Law* (2005), at 198.

⁹² *Id.* at 199.

⁹³ See, R.H. Mankiewicz, *De L'ordre Juridique dans L'espace Extra-Aéronautique*, 5 Annuaire Français De Droit International 103 (1959), 103-160, cited in C.W. Jenks, *Space Law* (1965), at 159.

civil aviation for many decades, and it is unreasonable to try to alternate its system and try to 'squeeze in' the area it was not designed to deal with. By contrast, coordination and cooperation with the entity that is designed specifically to regulate space traffic, which possesses necessary resources, specialists and most importantly State support, is not an onerous burden.

The issue of airspace and outer space delimitation can also be resolved using the legally non-binding mechanism of cooperation. It is suggested that "no fixed, arbitrary demarcation line, even if established, could eliminate all important anticipated problems,"⁹⁴ so outer space should be defined solely for the purposes of this mechanism. An eminent scholar pronounced that adoption of "a purely conventional boundary which would only subsidiarily rely on specific environmental or functional criteria"⁹⁵ is a feasible solution of the delimitation conundrum.⁹⁶ While there might be some tensions regarding the exact definition of outer space, the fact that the definition will be contained in a legally non-binding act is likely to smooth the controversy. Additionally, in the relevant part of the document it should be noted that this definition 'is solely for purposes of this [entity]', and 'is without prejudice to national and international documents and obligations of participating States'.

Overall, a legally non-binding mechanism of cooperation is a feasible option under several conditions. First, a new entity should be created in close contact with ICAO and COPUOS. Involvement of the International Telecommunication Union might also prove beneficial. Second, the underlying document of the new entity should be flexible enough and use only cautious wording akin to 'to the greatest extent possible', 'whenever feasible' and the like. But at the same time it should be precise enough in describing the entity's mandate *ratione materiae* by way of defining the outer space and the aerospace object.

Utilization of the legally non-binding document would allow, on the one hand, to have necessary definitions agreed upon, and on the other, preserve the opportunity to amend them as needed. Thereby, the main reason behind the US opposition to delimitation of outer space would be negated, and with the development of science and technology all necessary definitions can be easily revised.

⁹⁴ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 247.

⁹⁵ M. Lachs, The Law of Outer Space: An Experience in Contemporary Law-Making (2010), at 56.

⁹⁶ See also, H.J. Taubenfeld, *Outer Space: The 'Territorial' Limits of Nations*, 38 Fordham L. Rev. 1 (1969-1970), at 6. (Delimitation could be "based on mutual political accommodations rather than on the 'scientific' merits of the proposal.")

Technical rules and standards pertaining particularly to space traffic should be enunciated in Annexes to the main underlying document following the ICAO example. Scholarly works advocate Annexes as a proper way to assert technical standards in case a legally binding document is utilized, thereby eliminating the need to amend the treaty every time the standards have to be changed.⁹⁷ This scheme would still be preferable if a 'soft law' instrument is employed. There are two reasons for that. First, the main underlying document is intended to state objectives of the entity, participation rules, basic definitions, main organs of the entity and their responsibilities, voting procedure, financing and the like, and inclusion of technical standards in the main text would unduly complicate it. Second, as in case of ICAO, a separate Annex should be dealing with a separate topic or sub-topic, thus making navigation through standards easier, ensuring that no mutually controversial norms regulating one subject are introduced, and overall preserving strict specialization, which is important in technical issues. Generally, separate Annexes are easier to work with, to use and to amend. Drafting of Annexes should certainly be conducted in close collaboration with ICAO.

From a structural point of view, a plenary organ, a multi-member executive organ, a sole executive organ, an administrative entity performing secretarial functions and working groups drafting and revising technical standards would be required. On the one hand, the mechanism is envisioned as adopting exclusively legally non-binding documents that States are not compelled to comply with, but on the other, an international organization-like internal structure would create a basis for productive work toward a widely acceptable solution.

To maintain a spirit of cooperation a consensus-based decision-making should be favored, though as the International Organization for Standardization's definition of consensus pronounces: "Consensus need not imply unanimity."⁹⁸ The mechanism should be open to States and international organizations, which have powers in the area of outer space activities, and international nongovernmental entities should be allowed as observers. The latter is an important characteristic, because technical standards developed by this entity would in part regulate activities in sovereign airspace, and complete confidence of States that no private 'lobby' is able to influence these regulations is important.

⁹⁷ Cf., N. Jasentuliyana, International Space Law and the United Nations (1999), at 380.

⁹⁸ ISO/IEC Guide 2:2004, Standardization and Related Activities -- General Vocabulary, n. 1.

One might argue that a less formal mechanism of cooperation is not capable of developing rules and standards for space traffic that will be universally complied with. Throughout this book it has been noted more than once that a legally binding character does not presuppose (in)effectiveness of the document in question. The Moon Agreement and the Universal Declaration of Human Rights are just two examples. Therefore, not the legally binding character of the standards, but the quality of the standards and due consideration of States' proposals in the spirit of cooperation will presuppose whether or not the proposed mechanism is successful.

ICAO was created as an organization with a mostly technical mandate in the area, where a majority of States are sincerely interested in orderly regulation first and foremost for their own benefit. The legally non-binding solution advocated above, therefore, might well turn out to be an appropriate solution once States are persuaded that the orderly space traffic management would be more beneficial than it would be detrimental to their freedom. And the space traffic management regime does not need to go beyond technical regulation – just as the air traffic management regime – to be effective. Thereby, there is no reason, at least from the 'purpose-result' perspective, to believe that a legally non-binding less formal approach to cooperation would not succeed in regulation of space traffic. The rest depends on the execution: whereas ICAO is believed to have been elevated to its current level of respect by its workers "as good stewards of ICAO's business," qualifications of the new entity's members along with the usage of the most reliable and up-to-date data would anchor the new mechanism as an esteemed authority in its area.

Chapter 7. International Space Station

7.1 Overview

"The thought of living and working in outer space has captured the attention of numerous individuals. The intrigue associated with living in a new environment and of doing what few others have done before is fuel for this desire." ¹ And this desire, in turn, fueled international cooperation in creation and operation of the first multinational space station. Initially devised as an international project under the US leadership, bringing US allies as partners to the project, and designated the Space Station "Freedom", it has evolved into a 15-nation project with significant participation of the former Cold War rival weighting almost four hundred tons and called simply the International Space Station.

In the present chapter the mechanism of cooperation utilized in this grand project will be analyzed. The International Space Station (ISS) is unique in many ways, technical, scientific, political, economic, and not the least – legal. The ISS legal regime is comprised of a multi-layered system of legal documents, both multilateral and bilateral, legally binding and 'soft law'. And quite logically, the complex legal structure has spawned an intricate institutional system. The institutional component of the ISS project will be analyzed in close connection with the legal innovations included in the relevant legal texts; the basic six elements of the mechanism of cooperation will be identified and analyzed using the earlier proposed criteria. It has been suggested that the ISS legal regime provides an adequate legal framework for the project, being both precise and flexible enough.² Thereby, the ISS experience might serve as a basis for future massive international space projects, especially those requiring combination of efforts, resources and knowledge to create a new object outside the Earth atmosphere. The 'purpose-result' analysis will focus on consideration of whether the ISS mechanism of cooperation can be copied for other projects, or whether that is a peculiar construction created for a one-time use only.

The term 'space station' is not self-defining and is not self-evident, thus it is necessary to define it in a way that would be appropriate from both technical and legal points of view. The

¹ D.D. Smith, Space Stations: International Law and Policy (1979), at 12.

² See, D. St-Arnaud, A. Farand et al, *The Legal Framework for the International Space Station*, UN Committee on the Peaceful Uses of Outer Space Legal Subcommittee, April 17, 2013.

former National Aeronautics and Space Administration Administrator defined a space station as follows: "Properly conceived, a station could function as: (1) a laboratory in space, for the conduct of science and development of new technologies; (2) a permanent observatory, to look down upon the Earth and out at the universe; (3) a transportation node where payloads and vehicles are stationed, processed and propelled to their destinations; (4) a servicing facility, where these payloads and vehicles are maintained and if necessary repaired; (5) an assembly facility where, due to ample time on orbit and the presence of appropriate equipment, large structures are put together and checked out; (6) a manufacturing facility where human intelligence and the servicing capability of the station combine to enhance commercial opportunities in space; and (7) a storage depot where payloads and parts are kept on orbit for subsequent deployment."³ This strikes as a technology- and utilization-oriented definition. Alternatively, a space station can be defined as a "large space structure" located in outer space appropriate for permanent inhabitation and discharge of a variety of scientific and technical tasks.⁴ The ISS and future more ambitious projects, including prospective outer space colonization,⁵ would be covered by this definition; hence, it should be considered an appropriate one.

7.1.1 History of the ISS Project

As early as 1979 it was prophesied that it was probable that involvement of several States through institutional entities would intensify, "and thus there will be pressure for multiple participation in the area of space station ownership and operation."⁶ And indeed the International Space Station turned out to be one of the most significant examples of how the principle of international cooperation has been applied.⁷ The participating States "are realizing the advantages of sharing the risks and rewards of undertaking such a monumental effort in outer

³ *Civil Space Station* – Senate Hearing 98-523, before the Sub-Committee on Science, Technology and Space of the Committee on Commerce, Science and Transportation, 98th Congress, 1st Sess. 15 November, 1983, serial No. 98-48 (1984), at 43.

⁴ Cf., D.D. Smith, Space Stations: International Law and Policy (1979), at 2-3.

⁵ The term 'colonization' is not used in a meaning of occupation that is directly prohibited by Article II of the Outer Space Treaty.

⁶ D.D. Smith, *Space Stations: International Law and Policy* (1979), at 65.

⁷ See, C. Sharpe and F. Tronchetti, "Legal Aspects of Public Manned Spaceflight and Space Station Operations," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 619.

space."⁸ Unique advantages provided by the opportunity to work on the space station, including that of weightlessness, a perfect vacuum, the virtually unlimited light and energy source of the sun, and others, spurred unprecedented technological advances and breakthroughs to benefit the quality of life on earth.

While other space-faring nations weighted their options, President Reagan in his State of the Union Address on January 25, 1984 gave a ringing endorsement to the space station program by declaring that one of the great goals was to develop a new frontier based in the pioneer spirit. "I am directing NASA to develop a permanently manned space station and to do it within a decade," he enthused. "A space station will permit quantum leaps in our research in science, communications, in metals, and in life-saving medicines which could be manufactured only in space."⁹

The Space Station started out as a national US program to be executed by the National Aeronautics and Space Administration (NASA) in the late 1970s and acquired an international dimension with the conclusion in 1985 of three Memoranda of Understanding for the conduct of parallel detailed definition and preliminary design studies on the Space Station. "These Memoranda of Understanding, dealing with what is commonly referred to as "Phase B" activities, were concluded between NASA and the European Space Agency, NASA and the government of Japan, and NASA and the Canadian Ministry of State for Science and Technology."¹⁰ During negotiation of the initial Memoranda of Understanding in 1984-85 several principles emerged, which have influenced the current structure of cooperation in the ISS project. "The first, termed "functional allocation" is a NASA concept whereby each partner develops a different component of the space station to avoid duplication of effort. … The second principle is corollary of the first and is described as "mutual" or "open access". This implies that the entire space station should be a common facility allowing each partner to have access to all the others' contributory elements."¹¹

Due to the expected decades-long duration of the project and corresponding billiondollars costs, agency-level Memoranda were not considered sufficient. Involvement of the States

¹⁰ A. Farand, "Space Station Cooperation: Legal Arrangements," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 126.

⁸ L.L. Manzione, *Multinational Investment in the Space Station: An Outer Space Model for International Cooperation?*, 18 Am. U. Int'l L. Rev. 507 (2002), at 509.

⁹ P. Bond, *The Continuing Story of the International Space Station* (2002), at 106-07.

¹¹ A.J. Young, *Laws and Policy in the Space Stations' Era* (1989), at 100-01.

wishing to participate in such a project through the conclusion of an international agreement, what later became the Space Station Intergovernmental Agreement, setting out the general principles for carrying out this cooperative effort, including those governing the parties' conduct in outer space, was deemed necessary to secure a long-term high-level commitment to international cooperation in development and construction of the space station.¹² The initial Intergovernmental Agreement was signed on December 29, 1988.

It provided several examples of implementing standard space law provisions in an international context, such as applying the quasi-territoriality of jurisdiction over registered space objects to the individual elements of the ISS and creating a separate liability regime amounting to a very broad cross-waiver of liability as opposed to the default general liability regime under the Liability Convention. The latter was the evidence of the need to work together in such a highly innovative but risky area as space station operations without a chance of lawsuits spoiling the spirit of cooperation.¹³ Another notable feature of the Agreement was a distinction made between the Partner States and Cooperating Partners. This distinction in addition to being the first of its kind in international space law practice, was of a particular importance for Europe: there were twelve original Partner States but they represented only four Cooperating Partners in the project, the nine European States being grouped for the purpose of conducting this cooperation under the umbrella designation of the "European Partner".¹⁴ Despite changes introduced to the 1998 version of the Intergovernmental Agreement, this clause remained in force. The current mechanism used to incorporate the "European Partner" into the general scheme of cooperation intended primarily for States participation will be discussed later on.

In 1993 the original "Freedom" Space Station due to budgetary constraints was redesigned into the more conservative "Alpha" Space Station.¹⁵ At that time, when it had finally become clear that the Soviet Union had dissolved and the communist regime had been repealed, the United States decided to involve Russia in the Space Station international program. This decision was taken for a number of reasons, ranging from the desire to benefit from Russia's

¹² See, A. Farand, "Space Station Cooperation: Legal Arrangements," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 126.

¹³ See, F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 115.

¹⁴ See, A. Farand, "Space Station Cooperation: Legal Arrangements," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 126-27.

¹⁵ For a detailed discussion of the events that led to the space station redesign *see*, R.M. Bonnet and V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 112-19.

wealth of experience in human spaceflight to foreign policy objectives.¹⁶ On September 5, 1993, the human space programs of the United States and Russia became inextricably linked – something that would have been regarded impossible during the height of the Cold War – by an agreement signed by Vice President Gore and Russian Prime Minister Viktor Chernomyrdin. A November addendum to the Space Programme Implementation Plan detailed the three-phase plan for the US-Russian space cooperation. "Phase One comprised combined operations with the Shuttle and Mir. Up to 10 Shuttle dockings with Mir were anticipated, with Russia providing two years of astronaut flying time on Mir, opening the door to the first long-duration flight experience for U.S. astronauts in more than 20 years. Phase Two foresaw the construction of a joint interim space facility, based upon a second-generation Mir module mated with a U.S. laboratory. Successful implementation of this initial structure could then lead to construction of a truly international space station in Phase Three."¹⁷

As a result of this major change, the original Intergovernmental Agreement and Memoranda of Understanding had to be amended. The 1988 Intergovernmental Agreement stipulated the lead role of the United States due to the overwhelming importance of the contribution of that State in the program but mainly because of the need to provide for a clear line of command and control in this endeavor. Understandably, Russia being involved in the project to a large extent, exceeding that of the non-US partners in the project, pressed for the Agreement renegotiation, which would reflect the qualitative and quantitative importance of its contributions to the International Space Station program. The Intergovernmental Agreement, thus, had to establish a balance between the Partners without prejudice to the genuine partnership concept. As a result, the lead role of the United States, and almost all of its original responsibilities in the overall program management and coordination were confirmed, but a large number of changes were made to reflect the new technical reality brought about primarily by Russia's contributions but also by Europe's redesign of its original contributions to the project.¹⁸

7.1.2 Modern ISS Legal Framework

In order to bring the enormous ISS project to fruition, a consortium of as of now fifteen nations has come together to construct and launch various elements. More than forty launches of

¹⁶ *Id.* at 130.

¹⁷ P. Bond, *The Continuing Story of the International Space Station* (2002), at 66-67.

¹⁸ *Id.* at 132.

the Space Shuttle and Russian expendable rockets were required to deliver the different pieces, with at least 850 hours of spacewalks to assemble and maintain the station during its construction phase alone. The historic moment came on October 31, 2000 – sixteen years after President Ronald Reagan first proposed the construction of an international space station, when a Soyuz rocket blasted off from the Baykonur Cosmodrome carrying the first in a long line of crews to permanently inhabit the ISS. The ISS program is the first-ever space exploration project to accomplish unprecedented things: the first time a partnership of nations has owned and operated a space station; the first time western agencies have been given access to previously secret Russian facilities; the first time training and control centers in many countries have been linked; the first time traffic involving multiple spacecraft built by many countries has been coordinated; the first attempts at large-scale commercial ventures, including space tourism; the deployment of the largest solar arrays ever placed in orbit; the first time a robot has handed over to another robot in human space flight; and the list keeps on growing.¹⁹

The following legal structure providing the legal framework for the ISS massive project has been created. The 1998 Intergovernmental Agreement is the cornerstone of the specific legal regime pertaining to the ISS and its related activities. In accordance with Article 25 of the Intergovernmental Agreement it is a legally binding treaty subject to the provisions of the Vienna Convention of the Law of Treaties. All other legal documents relating to ISS activities, negotiated either on a multilateral or on a bilateral basis, refer to and are based on it. Underneath the Intergovernmental Agreement there is a series of Memoranda of Understanding concluded between the Cooperating Agencies of the States parties.²⁰ "At a third level all further implementing arrangements between the same entities form part of the ISS legal framework. The next tier of the hierarchy consists of contracts and subcontracts needed to involve private industry. These contracts mostly deal with the commercial uses of the ISS and address issues such as intellectual property rights."²¹

"The legal rules and principles developed, sui generis, to govern the operation of the ISS constitute a particularly interesting sub-section of space law. They are based on and consistent with the five U[nited] N[ations] space treaties but significantly expand their provisions in order

¹⁹ *Id.* at 2.

²⁰ See, F.G. von der Dunk, "Space Law in the Age of the International Space Station," in L. Codignola et al. (eds.), *Humans in Outer Space – Interdisciplinary Odysseys* (2009), at 150.

²¹ C. Sharpe and F. Tronchetti, "Legal Aspects of Public Manned Spaceflight and Space Station Operations," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 631.

to provide a legal framework capable of adequately addressing the specific issues resulting from human activities on board a manned station orbiting in low earth orbit."²²

The Intergovernmental Agreement regulates the important issue of liability between the cooperating parties, establishing a broadly construed cross-waiver of liability aiming at encouragement of "participation in the exploration, exploitation, and use of outer space through the ISS."²³ Since from the very beginning the ISS was planned as "a permanently inhabited civil international space station" serving for decades, it became apparent that specific legal regimes in addition to space law *strictu sensu* would become applicable to activities performed on board the space station.²⁴ Questions of criminal jurisdiction, intellectual property, customs and immigration, and exchange of data and goods are effectively regulated by the Intergovernmental Agreement. With the commencement of space tourism flights to the ISS, the Crew Code of Conduct was developed and adopted by the partners. It seeks to differentiate between astronauts and cosmonauts, and flight participants, and to establish 'ground rules' of appropriate behavior on board the Station.

By and large, the ISS legal framework though by no means comprehensive, is aimed at regulating those questions that are most likely to arise during months-long expeditions of complete strangers coming from different countries, cultures, and with introduction of leisure flights to the ISS, from different backgrounds, confined in a limited space twenty-four hours a day. Although these considerations are not purely legal, law in general, after all, is aimed at orderly regulation of relations between people; and in this case psychology is a relevant factor to consider when choosing areas of absolutely necessary regulation, in addition to regulation of intellectual property since primary goals of the ISS lie in the area of science and technology. The regulation, even if in the most broad terms, of these questions is an important element of cooperation in implementation of the large-scale long-term project: proactive regulation is required for the issues that might possibly cause tensions during the operative part of cooperation. "Overall, the ISS offers an example of how to manage international cooperation with respect to long-duration manned missions in outer space."²⁵

²² *Id*. at 619.

²³ *Id*. at 638.

²⁴ See, F.G. von der Dunk, "Space Law in the Age of the International Space Station," in L. Codignola et al. (eds.), *Humans in Outer Space – Interdisciplinary Odysseys* (2009), at 152.

²⁵ C. Sharpe and F. Tronchetti, "Legal Aspects of Public Manned Spaceflight and Space Station Operations," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 660.

Despite the great legal value of the ISS legal framework, it can hardly be considered a model for future cooperative endeavors in outer space exploration and use, but it can certainly be "a potential point of reference for either future world space organizations or for other long-term space projects of massive size and complexity."²⁶ Some authors even suggested that the ISS framework might serve as a basis for legal and institutional regulation of joint ventures in asteroid mining, erection of solar panels on the moon and space tourism.²⁷ While the basic features of the ISS legal regime has been briefly addressed, it has more peculiar legal and technical provisions ensuring that the project continues to be successful and manageable on a day-to-day basis after the major agreements have been concluded and the first elements launched and assembled. The work on the Station is still going on, and in 2015 launch of the multipurpose laboratory module with the European Robotic Arm is planned.²⁸ It has been seventeen years since the International Agreement and Memoranda of Understanding were signed and entered into force, and throughout this period the ISS partners have been able not only to cooperate within the initially envisioned framework, but to continue developing and enhancing the project, adding new modules and equipment, and extending duration of man's habitation on board the Station.

All that would not have been possible without the elaborated and continuously adjusted barter agreements between the partners, which are based on Article 9 of the Intergovernmental Agreement. Neither would any of it have been possible without the continuous work of organs and entities created to support the ISS project, including the Human Exploration and Operations Division, which provides policy guidance and program support for human exploration capabilities, systems development and operations; the Office of Safety and Mission Assurance working on safety, health and other medical matters; and the Multilateral Coordination Board tasked with development and adoption of yearly plans of the Station utilization and maintenance.²⁹ For the ISS project the Russian crew-training center is being utilized; until 2011

²⁶ F.G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 114.

²⁷ Cf., L.L. Manzione, Multinational Investment in the Space Station: An Outer Space Model for International Cooperation?, 18 Am. U. Int'l L. Rev. 507 (2002), at 510-11.

²⁸ European Space Agency, Building the Space Station, available at

http://www.esa.int/Our_Activities/Human_Spaceflight/International_Space_Station/Building_the_International_SpaceStation3.

²⁹ See, NASA Human Exploration and Operation Mission, available at

http://oiir.hq.nasa.gov/human_exploration.html; РИА Новости, Международная Космическая Станция [International Space Station], available at http://ria.ru/spravka/20150114/1042556349.html.

the US Shuttles and Russian expendable rockets were utilized, and nowadays due to the Shuttles' retirement only Russian launchers are being used. These are not merely technical specifics; they directly affect relations between the partners. For example, the barter principle necessitated that partners' allocations are renegotiated with the Shuttles' retirement, whereas the United States has become another user of the Russian rockets that are now the only transport to the Station.

Acknowledging that the preceding discussion goes deep into the particularities which do not substantively affect the major, overarching legal regime as established by the Intergovernmental Agreement and Memoranda of Understanding, they are still relevant parts of the legal framework supporting the ISS project. Thereby, the ISS legal regime cannot and should not be considered a model for future similar, or probably more ambitious projects. Future projects will definitely differ in many ways, like the list of participants, their respective roles, technological and financial capabilities, purposes and goals of the project, its duration and many more. But the ISS legal regime can and should be considered a basis, a starting point, a point of reference for draftsmen of legal documents for future outer space manned long-term projects.³⁰ Hence, the analysis based on the six criteria should be performed.

7.2 Six-Criteria Analysis

7.2.1 Membership/Participation

The Intergovernmental Agreement has been accepted by fifteen Partner States³¹ as well as by five Cooperating Agencies.³² Subsequently another State – Brazil – had effectively become a formal part of the legal construction supporting the ISS venture, but as a special partner, namely through a bilateral agreement with the United States under the arrangements pertinent to planned utilization by Brazil of the US modules of the ISS. In this context, the United States had

³⁰ The ISS is considered a useful structure that can be adapted for future, even very different projects. However, it is not advocated as a model to ensure that future projects have significant flexibility in drafting their institutional and legal structure.

³¹ United States, Canada, Japan, Russian Federation and 11 members of ESA, namely Belgium, Denmark, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom.

³² NASA, Government of Japan coordinating activities of relevant national agencies, Roscosmos, Canadian Space Agency, ESA.

to notify in advance and seek consensus from the other partners.³³ However, due to financial issues Brazil eventually left the project.

In accordance with the Preamble and Article 3 of the 1998 Intergovernmental Agreement, fifteen States are considered parties to the Agreement and Partners to the ISS project. Article 4 introduces the term 'Cooperating Agencies', which are responsible for implementation of Space Station cooperation. Article 4 enumerates five Cooperating Agencies responsible for cooperation on behalf of fifteen nations. This complex approach to participation in the project and the reasons behind using one shall be further explored.

"From a public international law point of view the Intergovernmental Agreement can be considered a 'mixed agreement'. Mixed agreements are defined as: 'Agreements with a third party to which an international organization and its members are parties, each in respect of its own competence'."³⁴ There, however, has never emerged a clear legal reasoning behind the phenomenon of a mixed agreement, because motivation for conclusion of a mixed agreement varies from case to case. "In many cases the decision to conclude a mixed agreement is due to some kind of expediency,"³⁵ but in practice this type of agreements has been utilized for European Union (and earlier European Community) participation in various forms of international cooperation, for example, membership in the World Trade Organization and the Food and Agriculture Organization of the United Nations alongside its members.³⁶ In case of the ISS there seems to be more to it. This aspect should be discussed in the context of questions of registration and jurisdiction – two issues that make the ISS venture clearly stand out from the legal point of view.

At the initial stages of the Space Station project evolution – at that point without the Russian participation – scholars pointed at the legal complexities with regard to registration of the future station. It was acknowledged that most likely the modular construction would be pursued, which turned out to be correct. The issue of registration, in addition to "myriad problems of aspiration, coordination and integration requiring solution to enable this venture to

³³ See, F.G. von der Dunk, "Space Law in the Age of the International Space Station," in L. Codignola et al. (eds.), *Humans in Outer Space – Interdisciplinary Odysseys* (2009), at 150.

³⁴ C. Sharpe and F. Tronchetti, "Legal Aspects of Public Manned Spaceflight and Space Station Operations," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 631-32.

³⁵ N.A. Neuwahl, *Joint Participation in International treaties and the Exercise of Power by the EEC and Its Member States: Mixed Agreements*, 28 Common Market L. Rev. 717 (1991), at 717.

³⁶ See, J. Heliskoski, *Mixed Agreements as a Technique for Organizing the International Relations of the European Community and its Member States* (2001), at 2.

proceed on its envisaged international basis³⁷ was among the most pressing. "Stated succinctly, the difficulty lies with according proper recognition to the considerable investment of money and expertise in the venture made by the several partners."³⁸

The initial proposal was for the United States to become the launching State as per provisions of the Registration Convention and consequently to become the State of registry. Later on it was suggested that "territorial application of Article VI of the Outer Space Treaty, not through the territory from which the space station is launched but through perceiving in law the space station as a piece of territory of its own and all activities taking place on board to be national activities, would solve the [] problems concerning seeming inapplicability and illogicality of application of the liability-regime through the launching state-notion."³⁹ Precisely this approach was endorsed by Article 5 of the 1998 Intergovernmental Agreement.⁴⁰

A unique special regime was established for registration and jurisdiction of the European modules of the ISS. "Although the European states party to the Intergovernmental Agreement are sovereign states as they signed the Agreement, they have jointly appointed ESA not only as their collective Cooperating Agency, but also as representing the 'European Partner'. Consequently, the European modules have been registered by ESA which [] has acquired the right to operate as the 'State of registration'. As ESA, however, is not a sovereign states, the exercise of 'jurisdiction', a prerogative usually exclusively of sovereign states, requires further arrangements."⁴¹ Such arrangements were provided as a matter of internal ESA procedure.

But there is another reason to consider designation of ESA as a partner in the ISS undertaking a unique scenario. "ESA, as an intergovernmental organization consisting of sovereign member states, does not and cannot exercise jurisdiction and legal control in the normal sense of the word"⁴² precisely because an international organization is a 'secondary', artificially created subject of international law possessing only those powers and functions that

³⁷ A.J. Young, *Laws and Policy in the Space Stations' Era* (1989), at 287.

³⁸ Id.

 ³⁹ F.G. von der Dunk, "Pandora's Box? The Basic Legal Framework for Doing Business with a Space Station: An Inventory of Problems," in K. Tatsuzawa (ed.), *Legal Aspects of Space Commercialization* (1992), at 124.
 ⁴⁰ Agreement Among the Government of Canada, Governments of Member States of the European Space Agency,

the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station, 29 January 1998, U.S. Treaties and Other International Acts Series 12927.

⁴¹ C. Sharpe and F. Tronchetti, "Legal Aspects of Public Manned Spaceflight and Space Station Operations," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 633.

⁴² F.G. von der Dunk, "Space Law in the Age of the International Space Station," in L. Codignola et al. (eds.), *Humans in Outer Space – Interdisciplinary Odysseys* (2009), at 153.

have been conferred upon it by the founding States. Despite the limited scope of its functions, despite the somewhat synthetic construction that was required to designate ESA the Cooperating Agency alongside national agencies of other Partners, it was considered beneficial and desirable to have an international organization as a same-level partner within this massive international cooperative project.

And this signifies the new role played by international organizations in contemporary international space law: although it has been long acknowledged that international organizations are the only opportunity for many States to participate in space exploitation, the legal structure chosen for the ISS project indicates that international organizations are not merely vehicles for States' commute into the club of spacefaring nations, but that they are already operating on a par with States. Dedicated space organizations akin to the European Space Agency possess required expertise, resources and States' support to effectively and efficiently discharge functions normally vested in a sovereign State on behalf of its members, whereas member-States relying on the created entity may effectively withdraw from operative activities.

By and large, since the Intergovernmental Agreement has fifteen Partner-States that signed the Agreement, only sovereign States are eligible to participate in the International Space Station project. Notwithstanding the primary role of the respective Agencies in practical implementation of the project, only States are considered parties to the Intergovernmental Agreement and, therefore, participants of the ISS cooperative undertaking at the highest legal level.

While nowadays such a construction is logical and appropriate due to the type of international organizations participating in outer space exploration and use, in future the participation structure might well be amended. With the growing involvement of the European Union in outer space activities,⁴³ and considering its unique status of a 'regional integration organization',⁴⁴ or a supranational entity performing certain sovereign powers of its member-

⁴³ See, e.g., A. Froehlich, "European Space Agency and European Commission: Recent Rules for the European Space Sector," in *Proceedings of the International Institute of Space Law 2013* (2014); J. Wouters and R. Hansen, "The Other Triangle in European Space Governance: The European Union, the European Space Agency and the United Nations," in *Proceedings of the International Institute of Space Law 2013* (2014).

⁴⁴ European Union, *International Code of Conduct for Outer Space Activities*, version from March 31, 2014, Part 10, http://eeas.europa.eu/non-proliferation-and-disarmament/outer-space-activities/index_en.htm.

States,⁴⁵ it is plausible that in the next 'space station' project the European Union would participate on behalf of its member-States, whereas practical implementation might or might not be handed over to the European Space Agency. Acknowledging that at present day this prospect is a mere extrapolation of the current trends onto a non-existent theoretical future outer space project, still States-only participation in projects of similar scale and complexity should not be presumed an everlasting reality. The international legal landscape is constantly changing and evolving, and whereas in 1967 it was considered inappropriate for international organizations to become parties to the Outer Space Treaty, today the European Space Agency has been successfully preforming functions of the Cooperating Agency for almost twenty years.

7.2.2 Secretariat

The ISS framework does not provide for an entity performing secretarial functions. Article 24 of the Intergovernmental Agreement states: "In the view of the long-term, complex, and evolving character of their cooperation under this Agreement, the Partners shall keep each other informed of developments which might affect this cooperation. Beginning in 1999, and every three years thereafter, the Partners shall meet to deal with matters involved in their cooperation and to review and promote Space Station cooperation." There are no additional provisions as to an appropriate format, place or time of the meetings. In practice the meetings are held on the level of the heads of the Cooperating Agencies and are convened at the ESA headquarters in Paris or in other ESA facility.⁴⁶ These meetings are generally aimed at discussion of technical details and plans of the Station utilization, and financial support of the planned missions. For example, during the 2004 meeting "the ISS Partnership unanimously endorsed the ISS technical configuration and reviewed the status of ISS on-orbit operations and plans."⁴⁷

⁴⁵ See, e.g., K. Archick, *The European Union: Questions and Answers*, Congressional Research Service 7-5700 (2015), available at www.crs.gov; European Parliament, *Fact Sheets on the European Union*, available at http://www.europarl.europa.eu/aboutparliament/en/displayFtu.html?ftuId=FTU_1.4.1.html.

⁴⁶ See, e.g., International Space Station Heads of Agency Meeting in 2002, 2004 and 2008 available at http://www.esa.int/Our_Activities/Human_Spaceflight/International_Space_Station/Joint_statement__International_Space_Station_Heads_of_Agency_meeting;

http://www.esa.int/spaceinimages/Images/2008/07/Heads_of_International_Space_Station_Agencies_meeting_at_E SA_Headquarters_Paris3; and

http://www.esa.int/Our_Activities/Human_Spaceflight/International_Space_Station/International_Space_Station_He ads_of_Agency_Meeting.

⁴⁷ International Space Station Heads of Agency Meeting in 2004, available at

http://www.esa.int/spaceinimages/Images/2008/07/Heads_of_International_Space_Station_Agencies_meeting_at_E SA_Headquarters_Paris3.

Therefore, these meetings are designed to develop a uniform strategy of the Station exploitation by way of clarification of the Memoranda obligations, introduction of new areas of joint actions, and coordination of activities of the partners' contractors and responsible agencies. Since the Intergovernmental Agreement is silent about the organizational part of the meetings and in practice they are held at different locations, and not precisely once in three years as stipulated by Article 24, but apparently as often as it is deemed necessary by the partners, the conclusion can be drawn that the secretarial functions for these meetings are performed by the hosting organization, namely the European Space Agency, and necessary arrangements are being made on a case-by-case basis. Indeed, this scheme fits perfectly in the overall system of the ISS regulation. The project is already big enough; it requires tremendous volume of coordination, communication and, at the same time, flexibility and opportunity to adjust joint actions depending on the arising needs. Hence, creation of a rigid structure supporting the triennial meetings would have been an undue complication and an additional item of expenditure. While the latter might be a drop in the ocean, the former is an unnecessary obstacle toward flexible communication in the spirit of partnership.

Maintenance of the ISS proper functioning requires holding additional meetings on a regular basis, including those of the Multilateral Coordination Board. They are summoned as often as might be required and are principally dedicated to discussion of technological issues within the mandate of the organ. For example, at the 2001 Board meeting the partners granted flight exemption to Dennis Tito.⁴⁸ Meetings of the Board and other similarly specialized organs, however, do not shape or affect international legal rights and obligations of the partners. These organs work under the umbrella of the ISS legal regime establishing their legal rights and obligations and are not empowered to alter them; rather they specify particular actions to be taken by the entities acting on behalf of the partners within the already existing legal framework. Thus, these particular organs should neither be considered organs of the ISS mechanism of cooperation in the international legal sense, nor should their organization and procedure be reviewed as a part of the six-criteria analysis of the international legal mechanism of cooperation.

⁴⁸ Originally Mr. Tito was supposed to be launched to the Russian space station Mir. However, in the course of preparations Mir had to be de-orbited, and in order to honor the commitment the Russians were forced to change Mr. Tito's destination to the Russian module of the ISS. For more information see, *See*, F.G. von der Dunk, "Space Law in the Age of the International Space Station," in L. Codignola et al. (eds.), *Humans in Outer Space – Interdisciplinary Odysseys* (2009), at 154.

7.2.3 International Legal Personality

International legal personality is not present in the ISS mechanism of cooperation, which is a logical outcome given the history of the project development. Stated succinctly, it was a situation where a former rival, one of the two first 'space superpowers' was invited in the project, and despite all the changes that had occurred after the Soviet Union dissolution, the doubts about Russia's reliability and loyalty to international cooperation in the spirit of partnership still persisted. Another important historical consideration is the fact that the ISS is the first international space station ever created, and understandably it has been a challenge to provide for a satisfactory but nevertheless sensible procedure of work. The first experience, as in most other areas, demands close supervision of all parties involved, and delegation to a third party, even if created or hired by the owners of the project, is premature.

Article 14 of the Intergovernmental Agreement states: "The Partners intend that the Space Station shall evolve through the addition of capability and shall strive to maximize the likelihood that such evolution will be effected through contributions from all the Partners. To this end, it shall be the object of each Partner to provide, where appropriate, the opportunity to the other Partner to cooperate in its proposals for additions of evolutionary capability." Although the primary objective of this Article is to oblige partners to make efforts to accommodate proposal of other partners to develop the Station, it also underscores that any developments and enhancements to the Station can only be done by the partners themselves and with appropriate coordination with other partners.

Article 23 continues: "The Partners, acting through their Cooperating Agencies, may consult with each other on any matter arising out of Space Station cooperation." By way of this provision any and all matters regarding the International Space Station are to be discussed and resolved by direct communication between the partners, thereby excluding possibility of any intermediary-separate-subject-of-international-law acting on behalf of the States or performing legally significant acts. Therefore, three out of four criteria characteristic for an entity possessing international legal personality are not fulfilled: while the ISS mechanism of cooperation is an association of States with lawful objectives, it does not have organs performing functions in the legal realm of cooperation; only the organs charged with technical responsibilities of the Station

maintenance have been created. Consequently, no international legal powers can be attributed to such non-legal organs.

7.2.4 Term of Existence

The term of existence criterion as applied to the ISS is comprised of two elements: the term of existence of the Intergovernmental Agreement as the legal basis for the project, and the term of existence of the Station as a physical object placed in orbit as a result of cooperation. The Intergovernmental Agreement has been created for an unlimited time. Part 5 of Article 28 "Withdrawal" in principle envisions the possibility of termination of the partners' rights and obligations, but does not explicitly state so or explain the exact procedure of such a termination. Therefore, the Agreement should be presumed as created for an indefinite period of time.

The term of existence of the Space Station itself, however, cannot be indefinite due to laws of physics, including the regrettable feature of all real things to wear out and sooner or later to come to the end of its existence. Initially the Space Station was expected to work for twenty years, but now the plan has been revised to maintain the Station until at least 2024.⁴⁹ There is a possibility that the Station's de-orbiting deadline would be further postponed depending on the available funding and the Station's overall condition.

Therefore, from a legal perspective the ISS mechanism of cooperation has been created for an indefinite period of time. It logically correlates with the purpose of the Station, namely scientific and technical research: as long as the partners are interested in continuing the research, and correspondingly funding the Station's operation, it would exist, with the caveat of the physical limitations on the term of its existence.⁵⁰

7.2.5 Binding Force of Documents Produced

The legal characterizations of most elements of the ISS legal regime cause little controversy: the Intergovernmental Agreement is a legally binding treaty, whilst the legal nature

⁴⁹ *NASA: Obama Extends International Space Station Operation Until at least 2024*, The Washington Post, January 8, 2014, available at http://www.washingtonpost.com/national/health-science/nasa-space-station-operation-extended-by-obama-until-2024-at-least/2014/01/08/9819d5c8-788e-11e3-8963-b4b654bcc9b2 story.html.

⁵⁰ The representative of Roscosmos announced that Roscosmos and NASA will work together on the project of a new orbital station. But he added that both parties "do not rule out that the station's flight could be extended", and that "its term of existence will depend on the implementation of our joint projects. See, *Russia Announces Plan to Build New Space Station with NASA*, Phys.org, March 28, 2015, available at http://phys.org/news/2015-03-russia-space-station-nasa.html.

of the implementing arrangements, and of contracts and subcontracts is primarily based on international private law. The legal nature of the Memoranda of Understanding, however, is a more controversial issue. The objective of the Memoranda - space agencies-level agreements - is to describe in detail the roles and responsibilities of the agencies in design, development operation and utilization of the Station. In addition, the agreements serve to establish the management structure and interfaces necessary to ensure effective utilization of the Station.⁵¹ There is, however, no general agreed definition of what a memorandum of understanding is as a matter of law. "A Memorandum of Understanding is more formal that a 'gentleman's agreement' but 'less than a contract'. It may, but need not, precede a contract. It is certainly a record (not necessarily exhaustive) of what the parties intend. In a mutual enterprise it is what the parties set down as their respective commitments, which may include financial provisions, but the 'obligations' enunciated are not to be founded on as a matter of law. In itself it can be a form of 'soft law'."52

Therefore, a memorandum of understanding seems to be a type of arrangement that registers a political and moral commitment of its parties to conduct itself in a certain way. But in the case of the ISS project, the Memoranda of Understanding initially preceded the 1988 International Agreement, thereby suggesting that at first they had been considered a sufficient legal basis for the endeavor. Furthermore, after Russia's accession to the project all underlying documents had to be renegotiated, and should the form of a memorandum be considered not stringent enough to record specific obligations of the partners, it could have been substituted for a different type of document. But it has not. It has been suggested that because of the Memoranda's close links with the Intergovernmental Agreement, "it would appear that the Space Station M[emoranda] O[f] U[nderstanding] will have acquired the status of international agreement, as an exception to the general practice in this field. Canada confirmed, through an official communication dated 29 September 1988 from the Canadian Ambassador in Washington to the State Department, that it was the intention of Canada to consider the M[emorandum] O[f]

⁵¹ European Space Agency, International Space Station Legal Framework, available at

http://www.esa.int/Our Activities/Human Spaceflight/International Space Station/International Space Station le gal_framework. ⁵² F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 37.

U[nderstanding] as an international agreement from the date of entry into force of the Intergovernmental Agreement for Canada."⁵³

By no means is there a clear-cut answer to the question of the Memoranda's legal nature. The scope of their provisions and the overall thrust of establishing roles and responsibilities of the partners in contribution to the project suggest a conclusion that they are more than nonbinding documents. At the same time, they should not be considered 'hard law' because the very fact that the Canadian Ambassador considered it necessary and appropriate to opine on his country's intent to treat the Memorandum as a binding agreement is suggestive of the uncertainty about the legal nature of the document. This 'intermediate' nature of the Memoranda should not be considered a weakness of the ISS legal regime, but an evidence of the complicated task its draftsmen were faced with: creation of a relatively sophisticated regulatory framework in outer space that was compatible with the rules of international law and would provide the code by which crews from different countries and cultures would be able to live and work together over long periods.⁵⁴

Some authors have described the ISS legal framework, including the Intergovernmental Agreement and the Memoranda of Understanding, as a "complex of legal and sub-legal arrangements,"⁵⁵ whereas the latter characteristic obviously pertains to the Memoranda. Notwithstanding a somewhat 'inferior' characterization of the Memoranda from a purely legalistic treaty-law perspective, they are still an integral part of the *legal* regime, and should be treated as such.

7.2.6 Existence of Opportunity to Modify Obligations

Both the Intergovernmental Agreement and the Memoranda of Understanding allow amendments. Article 27 of the Agreement requires that all amendments, except for those made exclusively to the Annex, be "subject to ratification, acceptance, approval, or accession by those States in accordance with their respective constitutional processes." So while there are no limits to the scope of amendments, the respective States are required to incorporate all amendments into their national legal systems to ensure that no State would become unable to comply with its

⁵³ A. Farand, "Space Station Cooperation: Legal Arrangements," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 129.

⁵⁴ Id. at 133.

⁵⁵ F. Lyall and P.B. Larsen, *Space Law: A Treatise* (2009), at 122.

obligations. It is reasonable to presume that this provision stems from the US foreign relations practice, because it was first included in the 1988 Intergovernmental Agreement, which was drafted under the United States leadership.

In accordance with the Treaty Clause of the United States Constitution, the President has the power "by and with the advice and consent of the Senate, to make treaties, provided two thirds of the Senators present concur." Since the 1950s, however, the presidents have used their executive power more often to conclude international agreements in the form of executive agreements, which do not require advice and consent of the Senate. In case the Senate disagreed with the actions taken by the President, it used the most powerful tool at its disposal – budget appropriations, and cut off funding for implementation of an international agreement concluded in the form of a presidential executive agreement. So while the United States continued to be bound on the international plane, internally the president remained powerless to implement such an agreement.⁵⁶

Funding is crucial for the normal functioning of the Space Station. Article 15 provides that each partner bears the costs of fulfilling its respective responsibilities, and in the event that funding problems arise that may affect a partner's ability to fulfill its responsibilities, that partner is required to notify and consult with other partners in a timely manner. Therefore, the 'incorporation clause' of Article 27 excludes at least one scenario leading to funds insufficiency, namely an internal constitutional conflict between the executive and legislative branches. Maintenance of appropriate funding in other situations remains a responsibility of the partners.

The Intergovernmental Agreement, being a legally binding document, however, does not contain provisions regulating reservations. Hence, formulation of reservations to the Agreement is regulated by Articles 19, 20 and 21 of the Vienna Convention on the Law of the Treaties. Article 19(c) of the Vienna Convention states that formulating a reservation is prohibited in case the reservation is incompatible with the object and purpose of the treaty. The United Nations International Law Commission explained: "A reservation is incompatible with the object and purpose of the treaty if it affects an essential element of the treaty that is necessary to its general

⁵⁶ For more information *see*, C.A. Bradley, J.L. Goldsmith (eds.), *Foreign Relations: Cases and Materials* (2014), at 467-473; G.S. Krutz, J.S. Peake, *Treaty Politics and the Rise of Executive Agreements: International Commitments in a System of Shared Powers* (2009), at 24-50.

tenor, in such a way that reservation impairs the *raison d'être* of the treaty."⁵⁷ The object and purpose of the treaty should be determined taking into account terms of the treaty in their context, in particular the title and the preamble, preparatory work, circumstances of its conclusion and subsequent practice.⁵⁸

The preamble of the Intergovernmental Agreement pronounces: "Convinced that working together on the civil international Space Station will further expand cooperation through the establishment of a long-term and mutually beneficial relationship, and will further promote cooperation in the exploration and peaceful use of outer space." The subsequent practice of the ISS exploitation proved that intensive cooperation and coordination have been the key to the project's success. The ISS history and the Agreement's preparatory work also evidence that search for a common ground for cooperation and development of the legal framework satisfactory to all parties concerned have been the project's cornerstone. Taken together, it seems that formulation of reservations to the Intergovernmental Agreement is not permissible because they would have been detrimental to its object and purpose, namely development of a legal regime for an unprecedented space project requiring an unprecedented level of cooperation.

In accordance with Article 39 of the Vienna Convention on the Law of the Treaties, amendments to treaties are made "by agreement between the parties," while a reservation is defined as a "unilateral statement" excluding or modifying the legal effect of a certain provision of a treaty.⁵⁹ Therefore, while amendments to the Intergovernmental Agreement made by agreement between the ISS partners and governed by Articles 39, 40 and 41 of the Vienna Convention are permissible because they do not undermine the cooperative, or collective method of work, unilateral reservations are incompatible with the object and purpose of the Agreement.

The Memoranda of Understanding also have amendments clauses. For example, Article 20 of the Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the Russian Space Agency Concerning Cooperation on the Civil International Space Station states that the Memorandum can be amended at any time by written agreement of the parties, and that any amendment must be consistent with the Intergovernmental Agreement.

⁵⁷ United Nations International Law Commission, *Guide to Practice on Reservations to Treaties 2011*, Yearbook of the International Law Commission, Vol. II, Part Two (2011), at para. 3.1.5.

 $^{^{58}}$ *Id.* at para. 3.1.5.1.

⁵⁹ *Id.* at para. 1.1.

7.3 Evaluation and Conclusions

Overall, the ISS mechanism of cooperation can be summarized as follows. It is a cooperative mechanism created for an indefinite period, open only to States' participation,⁶⁰ utilizing the secretariat of the hosting organization during its meetings, not possessing international legal personality and created by a legally binding international agreement explicitly allowing amendments. The enumerated features are characteristic for a traditional international treaty.

In Chapter 1 it has been noted that every international organization is created by an international treaty, but the mechanism of cooperation itself is the respective international organization and not the constituent treaty. That is so because States parties to the treaty and consequently members of the organization are cooperating by way of the organs and other mechanisms of the created international organization, and not by using the treaty provisions. In other words, operation of the organization is based on the treaty, and inter-State cooperation is based on the international organization.

The Intergovernmental Agreement is the legal basis for the more specialized methods of cooperation necessary for the International Space Station maintenance and management. These methods, however, are not legal in the sense that they do not create, modify or terminate legal rights and obligations of their parties on the international plane. An international organization created by a treaty, by contrast, possesses international legal personality and is normally granted certain rights and obligations by its founding States, so becomes capable of performing actions that create, modify or terminate legal rights and obligations. Therefore, the Intergovernmental Agreement is itself an international legal mechanism of cooperation that created a basis for establishment of both non-legal (technical cooperation) and non-international (agreements regulated by private law) mechanisms of cooperation necessary to fulfill the project, which the international legal cooperation was instituted for.

By and large, from the international legal perspective, the ISS project is founded on and administered by a single international treaty – the Intergovernmental Agreement. But the

⁶⁰ As explained above, strictly speaking, the States are the ones to sign the agreement, so despite the fact that European States handed the management over to ESA, they remain parties to the Agreement, not ESA. Although the role of ESA is unique in many ways, it cannot be considered party to the ISA.

operational structure of the project is materially more complicated. There are two 'branches' of cooperation derived from the Agreement – legal and technical. The legal 'branch' is represented by the Memoranda of Understanding, additional technical arrangements between the Cooperating Agencies, and the contracts and subcontracts needed to involve private industry, and nowadays also the Crew Code of Conduct. This 'branch' using 'soft law' documents, interagency agreements and contracts regulated by private law governs the roles and responsibilities of the Cooperating Agencies in the design, development, operation and utilization of the Station, substantiates technical side of cooperation, and establishes roles and functions of the respective Agencies and their contractors and subcontractors. None of these documents constitute international legally binding documents *strictu sensu*, but they all affect legal rights and obligations of the partners and are expected to be adhered to due to their close connection to the Intergovernmental Agreement.

The technical 'branch' consists of standards pertaining to technical and scientific implementation of the project, including crews training, operation of control centers and standards of equipment compatibility. This 'branch' is distinguishable from the legal 'branch' by the non-legal character of regulation, but is based on the provisions of the latter; at the same time, the Intergovernmental Agreement is the foundation of both 'branches'. In other words, while the Memoranda of Understanding and the agreements regulated by private law do not constitute a legal basis for this technical cooperation – precisely because, as it has been explained above, they are not strictly speaking binding on the international plane – they do shape the scope and the nature of technical cooperation. For example, the Memoranda of Understanding cannot be considered legally binding and they rather elaborate the Intergovernmental Agreement's provisions. While the Memoranda, being the more specific documents containing respective rights and obligations of the partners, create the basis for technical cooperation, the Intergovernmental Agreement is the one to be considered the legal basis for such technical cooperation from a strictly legal perspective. The bottom line is that the Intergovernmental Agreement, legally speaking, is the sole legal source of cooperation in the ISS project, whereas in practice all layers of the ISS legal regime are interconnected and affect each other's operation.

Generally, the ISS mechanism of cooperation is created by and functions as the international treaty. A single treaty, supplemented by the legally non-binding Memoranda of Understanding between the Cooperating Agencies and several other tiers of documents, acts as a

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legal basis for the largest international cooperative endeavor in outer space. It has been argued that in international law a distinction exists between 'law-making' treaties and 'contract' treaties, where only the former should be considered a source of international law because they impose the same obligations on all parties to the treaty and seek to regulate parties' behavior over a long period of time.⁶¹ While this differentiation might be misleading in the context of the theory of sources of international law, it is quite helpful in the analysis of particular treaties, especially of their practical application.⁶² There are only a few treaties that can be firmly designated to one category or the other, since most treaties contain provisions that fall within both categories. Particularly, in the context of the International Space Station, an Intergovernmental Agreement also has elements of both 'lawmaking' and 'contract' treaty, but it is suggested that, judging primarily by the way the Agreement is structured and operates in practice, it should be tentatively labeled a 'framework-contract-treaty'.

Out of the Agreement's twenty-eight articles only six do not refer to the Memoranda of Understanding as documents containing detailed procedures, obligations, responsibilities and the like. The Agreement undertakes to outline the overall structure, scheme of cooperation, where only the most important issues are to be regulated in detail, for example the cross-waiver of liability principle, criminal jurisdiction and intellectual property jurisdiction, general procedures of communication and management. The Intergovernmental Agreement, however, does not contain specifics as to the required level of funding, provision of the Space Station communications, launch and return transportation services, and suchlike. It is beyond question that inclusion of detailed provisions relating to the Station's maintenance and exploitation would have been inappropriate and inconvenient. But at this point the conclusion should be drawn that the Agreement has been intentionally drafted to provide only a framework that has three elements: the overall scheme of cooperation, provisions regulating certain issues deemed substantively important for the whole project, and general obligations of the partners that are to be specified in the Memoranda of Understanding and implementing arrangements.

The remainder myriad of questions are to be addressed using the more specialized either 'soft law' instruments or technical agreements. Hence, while the Intergovernmental Agreement indeed has imposed certain obligations to regulate partners' behavior over the term of the ISS

⁶¹ See, P. Malanczuk, Akehursts's Modern Introduction to International Law (1997), at 37-38. ⁶² Id. at 38.

project, on the whole it is concerned with creating a blueprint, a map for the States to use on the road toward the Space Station of their dreams. In other words, the Agreement has not attempted to micromanage legal and technical issues that might arise throughout the decades-long project. Instead, it focused on those areas that necessarily have to be regulated and those that have not ever been regulated before, leaving the rest to be decided 'on the go'.

Overall, the ISS project has provided a successful legal basis for prospective manned exploration and use of outer space. "It has shown that governments can collaborate on technological, financial, political and legal levels to produce successful projects that provide for the benefit of all with little dispute and operational difficulty."⁶³ It has shown that governments can successfully cooperate despite their political or economic differences, that mutual interest in cooperation helps overcoming any controversies and work toward an acceptable solution even if it means re-drawing the initial project. Moreover, the ISS project has underlined the importance of a structural approach to the legal regulation of complex long-term space endeavors. A multi-layered legal framework has allowed distinguishing matters worthy of inter-State overarching agreement, matters that are better dealt with on a bilateral level thereby ensuring sufficient flexibility, and issues that should be left to self-regulation of the immediate agencies and entities involved.

"Many challenges await the international community. However, if nations can maintain the same level of collaboration and willingness to cooperate that has characterized the ISS experience, it is likely that future outer space endeavors would be structured in a cohesive way leading to success."⁶⁴ The ISS endeavor is more than an example of successful cooperation, it is a precedent of a level of coordination unseen before, and certainly it is a precedent of a preciselytailored legal regulation that takes into consideration not only the envisioned goals of the project, but also the goals of its participants, the need to preserve flexibility to allow adaptation throughout the long-term functioning of the station along with the need to preserve a certain level of stability, mainly by assuring partners that their rights cannot be threatened by a unilateral action. The choice of a 'framework-contract-treaty' structure has played a significant part in the overall success of the project, from both practical and legal points of view.

⁶³ C. Sharpe and F. Tronchetti, "Legal Aspects of Public Manned Spaceflight and Space Station Operations," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 659.

⁶⁴ *Id*. at 661.

That is the approach that has to be adopted for future international cooperative projects of similar scale and complexity. The need to separate legal issues from technical, administrative, logistical and other similar issues is not the only lesson to be learned, albeit it is clearly an essential element in the ISS project's success. Neither it is suggested that copying every single feature of the ISS mechanism of cooperation, including the participation open solely to States and the absent organ performing secretarial functions, would be justified for future projects. Rather, the overarching modus operandi is something to be propagated in future similar projects. Large-scale technically complex multi-national long-term outer space projects have one immutable characteristic – they are bound to be evolving over the years, and the ISS partners have acknowledged this feature when drafting the Intergovernmental Agreement.

At the present state of outer space technology it is impossible to assemble a space station suitable for permanent inhabitation on earth and launch it into outer space in one piece. Thereby, construction of a similar or larger space station would necessarily have an assembly period, which in the case of the ISS lasted over 11 years. But even completion of the main body of the station does not mean that the evolution is over; to the contrary, incessant development of science and technology allows enhancing the station and its capabilities, introducing new elements and planning new missions and researches. The unceasing evolution is more than a technological process; it also means that legal rights and obligations would also be subject to adaptation. This is precisely the reason for choosing a flexible, a framework-contract-like legal basis for cooperation. On the one hand, it allows distinguishing between legal and all other matters, leaving lawyers to deal with the former and keeping them out of the latter. On the other, it creates a firm legal basis for cooperation and inter-partner relations, at the same time leaving particularities to be dealt with at the practical applications stage and not on an abstract, conceptual level.

It has been suggested earlier that inclusion of international organizations in the list of eligible participants is one possible modification to the space station mechanism of cooperation. Opening up the mechanism to the international organizations would not substantively alter the cooperative approach advocated above, though, certain changes would have to be made; particularly questions of jurisdiction and ownership would have to be revisited.

Another possible modification might be the creation of a separate dedicated international organization tasked with the project management and supervision. The scholarly work dating to

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the late 1970s proposed utilizing a regional international intergovernmental organization as a possible mechanism of space station operation.⁶⁵ Utilization of a regional organization might not be exactly justified if, as in the case of the ISS, participating States do not belong to the same region, but the idea of an international organization charged with project management should not be completely disregarded.

Surrender of operating rights to a specially created international organization in principle remains a possibility, but that would require an unprecedented, even compared to that exhibited in the ISS project, level of cooperation and trust among cooperating States. Such an organization's constitutive treaty would have to be meticulously drafted to provide it with powers sufficient to perform both legal and technical management and supervision of the project, on the one hand, and to preserve a satisfactory level of control of States-parties over the project, on the other. Undoubtedly, utilization of an international organization mechanism of cooperation for the project similar to the International Space Station would require substantial rework of the structure of the parties' rights and obligations, ownership and jurisdiction, and the like. In the end, while theoretically this is a possibility, utilization of an international organization as a mechanism of cooperation for a large-scale international space project, remains a very distant possibility.⁶⁶

Substitution of the treaty mechanism of cooperation for an international organization, therefore, would be a major change. Nevertheless, even with an international organization charged with the project management, the advocated approach, namely a flexible, a framework-contract-like legal basis for cooperation, still can and should be followed.

An international organization is created by an international treaty; the constituent treaty might be very comprehensive, establishing the organization's structure, competence and procedures in great detail, simultaneously creating substantive rules applicable to the issues subject to the organization's mandate. Alternatively, it might be limited to creation of an international organization by way of framing its mandate and applicable methods of work,

⁶⁵ See, D.D. Smith, Space Stations: International Law and Policy (1979), at 195.

⁶⁶ E.g., *see* A. Guzman, *Doctor Frankenstein's International Organizations*, 24 Eur. J. Int'l L. 999 (2013), where the authors persuasively argues that States are very cautious in providing international organizations with any significant authority, especially mandating organizations to adopt legally binding decisions. In the same vein, it is plausible to suggest that entrusting an international organization with management of an extremely expensive outer space station would take a major reconsideration of States' attitude toward creation of powerful international organizations. The author, however, suggests that States and the whole process of international cooperation would significantly benefit from a less cautious approach to the authority granted to international organizations.

leaving other details to be decided by the organization's plenary or executive organs. If the latter scenario is used, then the organization preserves the ability to act when the time is ripe, when there is a need for action.

The international organization mechanism of cooperation is not an obvious choice, at least currently. It is a whole new level of cooperation and trust compared to the international treaty mechanism, where each State retains complete control over its part of the Station. It seems that only if the member-States of the European Union were to create a European Space Station, could an organization have been a viable option; there is hardly any other combination of States that would have been a probable candidate for using the international organization as a mechanism of cooperation in the space station project. There are multiple other arguments against this option: the complicated and lengthy lawmaking procedure characteristic to international organizations; the high costs of the organization's maintenance; the inability of an organization to become a 'full' party to the Outer Space Treaty and three elaborating conventions; the need to circumvent the organization's inability to exercise jurisdiction and control in the normal sense of the word; and others.

At this point, there is no need to insist on the international organization's option; quite to the contrary, presently there is a need to advocate against this option. But the time may come when an international organization would be the best possible mechanism of cooperation for large-scale international outer space projects. Stephen Hawking has asserted that if the human species is to continue beyond the next hundred years, its future is in space. Elon Musk of SpaceX has posited the goal of establishing ourselves as a multi-planetary species.⁶⁷ And if these projections were to become a new reality, intensive international cooperation in the technologically sophisticated area of space applications would play a crucial role. Nowadays, the ISS experience should be considered the most successful example of international cooperation in the realm of space applications, from both practical and institutional perspectives.

⁶⁷ See, L. Brennan, Why China's Space Program Stands Out, cnn.com, May 29, 2015.

Chapter 8. Committee on Earth Observation Satellites

8.1 Overview

In this chapter the Committee on Earth Observation Satellites ("CEOS") will be analyzed. In some parts of CEOS underlying documents the entity is designated as an "international organization" and its participants are named "Members and Associates",¹ while in others it is characterized as a "forum" for coordination. CEOS, thus, is an interesting subject for the institutional analysis, requiring a comprehensive review of the Committee's structure and procedural elements to determine the legal nature of this mechanism of cooperation. First, the distinctive elements of the entity will be reviewed. Second, the analysis based on the proposed criteria will follow leading to the conclusion about the category of cooperation CEOS belongs to. Third, based on the analysis of the goals the founding States were aiming to achieve by way of establishing CEOS and the results that have been achieved so far, conclusions will be offered about the effectiveness of this mechanism.

CEOS "was established in September 1984 in response to a recommendation from a Panel of Experts on Remote Sensing from Space that was set up under the aegis of the G7 Economic Summit of Industrial Nations Working Group on Growth, Technology and Employment."² Since then the number of Earth-observing satellites has vastly increased, and CEOS reported in late 2013 that it was overseeing one-hundred and seven space satellite missions from over twenty States and several international organizations. In 2015 the total number of overseen satellites increased to one hundred and thirty-five from fifty-five participating Agencies.³ The mission of CEOS is to ensure "international coordination of civil space-based Earth observation programs and promote exchange of data to optimize societal benefit and inform decision making for securing a prosperous and sustainable future for humankind."⁴ At the outset it should be observed that space satellite missions oversight and

¹ Committee on Earth Observation Satellites, *Governance and Processes* (November, 2013), at 3, www.ceos.org.

² Committee on Earth Observation Satellites, *Strategic Guidance* (November, 2013), www.ceos.org.

³ See, Y. Yamamoto, 2015 Activities of the CEOS, 2015 International Astronautical Congress, Technical Session "International Cooperation in Earth Observation Missions," IAC-15.B1.1.1. Not yet published as of November 2015.

⁴ Committee on Earth Observation Satellites, *Terms of Reference* (November, 2013), at 2, www.ceos.org.

operations enumerated in the CEOS mission are all of a long-term character, requiring continuous cooperation and management.

The CEOS underlying documents state that Members and Associates, collectively referred to as the Agencies, have affirmed the value of cooperation in the development and management of remote sensing and associated data management systems, and the need for optimization of national programs to avoid redundancy among systems. And the Agencies "have agreed to continue to informally coordinate their current and planned systems for Earth observation from space through the organization of CEOS."⁵ In other words, the agreement has been reached to *informally coordinate* national activities, and not to establish a supervisory mechanism charged with coordination of such activities in a formal, rigid manner, in spite of the continuous nature of CEOS operations. Achievement of long-term goals, thereby, is not made dependent on utilization of formalized methods of coordination.

The work of CEOS is conducted through a number of permanent and temporary organizational mechanisms. The Secretariat, the Strategic Implementation Team, the CEOS Executive Officer, the CEOS Systems Engineering Office, the Working Groups and the Virtual Constellations are the main permanent organs of the Committee. CEOS also utilizes the Troika – prior year, current year and future year CEOS Chairs – to allow CEOS leaders to exchange ideas and discuss issues regarding current year achievements, and direction, strategy, plans and expectations for the following years. While it is not clear if the Troika is a permanently functioning mechanism, it is logical to infer that it is commenced after the annual Plenary meeting: it allows looking back at the year that passed taking into consideration information shared during the Plenary, and work on future plans and strategy again taking into consideration opinions voiced at the meeting. Additionally, capability exists for the Plenary to create Ad Hoc Teams in case of permanent mechanisms' insufficiency or existing need to address specific, short-term activities.

Two other permanent CEOS mechanisms are the Working Groups and Virtual Constellations, which are described as "permanent working-level mechanism[s] for coordinating CEOS Agency assets."⁶ They are charged with fulfillment of technical tasks, such as calibration, validation, capacity building and coordination in development of a set of common requirements

⁵ Id.

⁶ *Id*. at 7.

for space- and ground-based systems.⁷ The Working Groups' activities are intimately connected with and complimentary to the work of the Virtual Constellations; so to ensure proper communication and avoid discrepancies in their activities both mechanisms report to the Strategic Implementation Team Chair, while the Working Groups also report directly to the CEOS Chair. This mechanism, on the one hand, establishes a single point of contact and supervision for organs working essentially on similar tasks, and on the other, makes the Working Groups a 'cross-cutting' mechanism within CEOS connecting working-level organs with governing-level organs.

The CEOS Plenary meetings are held annually in October-November. They are hosted, organized and chaired by the CEOS Chair.⁸ The CEOS Chair is elected for a one-year term, as will be discussed in detail further, so every next Plenary meeting is convened in a new place depending on the location of the current Chair. The agenda of the Plenary sessions and voting procedures are of relevance to the present analysis. The underlying documents emphasize that flexibility in fixing meetings' objectives is necessary, and that CEOS "should be viewed as a place where organizations can gather to accomplish specific goals that are relevant to them, with no pressure to participate in activities that are of less interest or for which they do not have resources."9 Additionally, the CEOS underlying documents explain that past experience has demonstrated that the resources, fields of interest, competences, and strengths of the CEOS Chair team and the Strategic Implementation Team Chair team vary, and that both teams should complement each other, what can only be achieved through dialogue. Thus, flexibility in the definition of the objectives for both the Plenary and Strategic Implementation Team meetings allows adjusting their agendas to target CEOS needs, and consequently allows both teams to adjust their respective agendas by inclusion of the most relevant topics and, at the same time, avoiding repetitiveness and overlaps among these meetings.

The voting procedure is similarly flexible. The consensus decision-making procedure has been chosen in order to optimize agreement of the CEOS Agencies and maximize their commitment to deliver their best effort. However, unlike the consensus procedure adopted within the United Nations system, here consensus signals only a presence of "a significant number" of Agencies supporting the decision. Absence of support for a particular activity by a specific

 $^{^{7}}$ *Id.* at 7.

⁸ Committee on Earth Observation Satellites, Terms of Reference (November, 2013), at 4, www.ceos.org.

⁹ Committee on Earth Observation Satellites, Governance and Processes (November, 2013), at 17, www.ceos.org.

Agency does not prevent adoption of a decision "if sufficient support is available." Hence, it can be concluded that only a majority support is required, whereas deference to the consensual method is rather a political move designed to circumvent voting and create an atmosphere of friendship, not competition, as it is common for organs utilizing a majority voting procedure. Overall, despite the elaborate institutional structure, CEOS is striving to preserve flexibility of the methods of work, providing for extensive opportunities for dialogue on different levels of cooperation, expeditious adjustment of subjects under consideration as might be necessary, and opting for a 'relaxed' version of the consensus voting procedure. The need for 'informal coordination' is put at the front and center of this entity, as will be confirmed by the following analysis.

8.2 Six-Criteria Analysis

8.2.1 Membership/Participation

CEOS allows participation of different types of subjects. Participation in CEOS can be either in the form of a Member, or an Associate. International and national governmental organizations responsible for a civil space-based Earth observation program currently operating or at least in the detailed design phase are eligible for the status of a Member in CEOS. International and national governmental organizations that have a civil space-based activity in concept feasibility and definition phases, and satellite coordination groups and international scientific or governmental bodies that have significant programmatic activity that supports CEOS objectives are eligible for a status of an Associate.¹⁰

While Associates may fully participate in the Plenary and Working Groups discussions, only the approval of Members is necessary to establish consensus in the decision-making process. This formula resembles the procedure used in the World Health Organization. The World Health Assembly may grant a status of observer to "any organization, international or national, governmental or non-governmental, which has responsibilities related to those of the Organization."¹¹ Observers are allowed to participate in meetings and committees of the

¹⁰ Committee on Earth Observation Satellites, Terms of Reference (November, 2013), at 3, www.ceos.org.

¹¹ Art. 18 of the Constitution of the World Health Organization, in *World Health Organization Basic Documents*, Forty-fifth Ed., Supp. (2006).

Organization, but they are not granted the right to vote. In the absence of a general 'law of international organizations' there is no universal definition of the status of observer, there is no unified understanding of the rights and responsibilities of an observer to an international organization.¹² Generally, the practice supports the formula endorsed in the World Health Organization: the status of observer may be granted to an entity with responsibilities similar to those of the organization, and it authorizes the entity to participate in organization's meetings but does not grant the right to vote.¹³

Thereby, it is plausible to suggest that a status of a CEOS Associate is quite similar to the status of observer, as it is generally understood in international law, and hence entities with the status of an Associate cannot be considered members of CEOS, just like observers of the International Maritime Organization cannot be considered members of the organization. The statuses of a CEOS Member and a CEOS Associate are different: while they both entail the right to participate in all meetings, only the former gives the right to vote. Then, it should be concluded that only States and international intergovernmental organizations are eligible for the status of a CEOS Member and so are eligible to vote, and non-governmental entities are merely non-voting participants, or observers in more common terms.

8.2.2 Secretariat

The CEOS Secretariat "provides a forum for coordination between Plenary sessions" and meets on a monthly basis.¹⁴ As provided by the CEOS underlying documents, the Secretariat is "maintained by" the European Space Agency, the European Organization for the Exploitation of Meteorological Satellites, two American and two Japanese CEOS Agencies. BLACK'S LAW DICTIONARY provides six definitions of the term 'maintain' and the most relevant one in the current context is the following: "To care for (property) for purposes of operational productivity or appearance; to engage in general repair and upkeep."¹⁵ The contextual reading of the underlying documents leads to a conclusion that the Secretariat consists of the representatives of

¹² For a discussion about the types of observers and rights granted to observers *see*, H.G. Schermers, "International Organizations, Observer Status," in *Encyclopedia of Public International Law*, *5: International Organizations in General, Universal International Organizations, and Cooperation* (2014), at 151-52.

¹³ This or a similar formula is adopted in International Maritime Organization, United Nations Educational, Scientific and Cultural Organization, International Organization for Migration, United Nations Conference on Trade and Development, World Intellectual Property Organization, and others.

¹⁴ Committee on Earth Observation Satellites, *Governance and Processes* (November, 2013), at 5, www.ceos.org.

¹⁵ Black's Law Dictionary, "Maintain", 10th ed. (2014), Westlaw Next.

these Agencies, and these six Agencies together are responsible for administrative management of the Secretariat.

The Secretariat composition, however, is not limited to representatives of these six Agencies. The Chair presides over the Secretariat; former and future Chairs are also included to ensure expeditious and smooth conduct of business; the Chair of the Strategic Implementation Team, Working Groups Chairs, the CEOS Executive Officer and the CEOS Systems Engineering Office are invited to participate in the Secretariat; and upon the Chair's invitation representatives of additional CEOS Agencies or other relevant organizations might participate in the Secretariat on a temporary basis. Such a representative Secretariat makeup apparently has been established not only to facilitate efficient fulfillment of its functions, but also to ensure that they are carried out in an unbiased, fair, evidence-based and verifiable manner.

The latter reasoning is justified given the fact that the Secretariat is the one to formulate CEOS position statements and coordinate CEOS activities both internally and externally. In other words, the Secretariat is the organ that determines which decisions, opinions and actions of the CEOS Agencies are made public; the Secretariat has the power to emphasize certain actions and diminish importance of others; overall, effective execution of its functions is crucial for CEOS reputation externally and adequate communication internally. Keeping in mind that a majority of the Secretariat members are simultaneously the representatives of their respective Agencies and are not completely independent international civil servants, composition of the Secretariat, the more trustworthy it is. As any other secretariat, the CEOS Secretariat is in charge of meeting attendance coordination, reviewing meetings agendas, actions and minutes, maintaining an expeditious flow of documents and reporting on other relevant topics upon CEOS organs' requests.

The Chair heads the Secretariat and performs a number of other important functions within the CEOS framework. Particularly, the Chair hosts, organizes and chairs the Plenary meetings.¹⁶ He has the overarching responsibility "for ensuring that the guidance and direction from the annual CEOS Plenary are appropriately reflected in CEOS's activities and collective strategic priorities."¹⁷ The Chair is charged with a whole multitude of other responsibilities,

¹⁶ Committee on Earth Observation Satellites, *Governance and Processes* (November, 2013), at 4, www.ceos.org. ¹⁷ *Id.* at 4.

including chairmanship of the Troika, oversight of the activities of the Executive Officer and the Working Groups; overall, the Chair is described as "the primary interface for all external coordination." The Chair serves a one-year term, and though he is elected from senior space agency officials, the CEOS underlying documents provide for an independency safeguard clause: The "CEOS Chair … receives guidance from, and reports to, the CEOS Plenary."¹⁸ Additionally, in order to preserve fairness and promote leadership diversity the Chair responsibilities are rotated amongst major geographic regions.

The CEOS Executive Officer is the additional mechanism created to assist the Secretariat and in relevant questions the Strategic Implementation Team; however, this organ seems to perform much more important functions in the long-term perspective. The Executive Officer is a full-time official appointed by the Chair for a two-year term and charged with development of a Work Plan, with advising CEOS leadership on prospects for continuation and expansion of cooperation, and tracking relevant actions.¹⁹ The Officer, thereby, is essentially charged with keeping an eye on the possible future Earth observation projects, identifying States and international organizations that plan or might begin planning Earth observation missions, locating other entities whose participation in CEOS would be desirable and beneficial. The CEOS underlying documents clearly state: "CEOS leadership shall maintain awareness of emerging international groups capable of qualifying for CEOS membership, and make an effort to engage them in CEOS activities." And that is, apparently, the main responsibility of the Executive Officer.

Additionally, the Officer is charged with development of a Work Plan – a document updated on an annual basis setting forth near-term objectives and deliverables. The current Work Plan was finalized in March 2015 and includes a description of CEOS activities to be executed in the 2015 calendar year, and summarizes anticipated activities for the subsequent two years. The Executive Officer is responsible for annual Plan review as current activities are completed, planned activities are executed, and new initiatives are projected.²⁰ Overall, the nature of the activities performed by the Executive Officer indicates that CEOS as an entity is focused on long-term activities, providing its participants clear understanding of the strategy, at the same time actively monitoring ongoing changes and appropriately incorporating them in CEOS

 $^{^{18}}$ *Id*.

¹⁹ *Id*. at 6.

²⁰ Committee on Earth Observation Satellites, CEOS 2015-2017 Work Plan (March 30 2015), www.ceos.org.

activities. In other words, CEOS strives to remain relevant, to continue incentivizing the Agencies to cooperate in achievement of its goals and to promote among its participants a prospective-oriented mindset and willingness to adapt to the changes.

It has been earlier determined that an international organization's secretariat possesses the following characteristics: (1) a separate organ within the structure of the organization; (2) working on a permanent basis and financed from the organization's budget; (3) and acting independently from the will of member States and pursuing in its work goals of the international organization, thus possessing an international character of work. International treaties and conferences either have *ad hoc* secretariats or use administrative capacities of a hosting organization.

The functions of a secretariat within CEOS are performed by the CEOS Chair, the Secretariat and the Executive Officer; basically, these three organs should be considered as 'departments' of the CEOS secretariat. The CEOS underlying documents clearly stipulate that these three organs are permanent; the documents establish a detailed procedure of their members' election or appointment and enumerate functions of each of these organs within the CEOS structure. So by no means can they be characterized as *ad hoc* entities or as belonging to a different organization.

Whether the CEOS secretariat meets all three criteria of an international organization's secretariat is not entirely clear. Undoubtedly, there are separate organs fulfilling secretarial functions within the CEOS structure, and undoubtedly they are working on a permanent basis, as it has been established earlier. But it is not clear whether they are financed from the organization's budget since the CEOS underlying documents are silent on this matter. Relevant conclusions might be inferred from the following statements: "CEOS should be viewed as a place where organizations can gather to accomplish specific goals that are relevant to them, with no pressure to participate in activities that are of less interest or for which they do not have resources. As CEOS initiates and further implements activities, Members and Associates may choose to participate or not participate, depending on their interest in particular activities."²¹ The document goes on to emphasize that it is important to "increase use of telecommunication

²¹ Committee on Earth Observation Satellites, *Governance and Processes* (November, 2013), at 17, www.ceos.org.

technology and leverage other internal and external meetings to maximize the efficient use of resources"²² and suggests that more meetings should be held via teleconference.

It seems that this flexibility in meetings' attendance and participation in CEOS activities is a sound indication in favor of case-by-case funding of programs undertaken and limited resources allocated for the maintenance of permanent CEOS organs – if such resources are indeed being allocated. Introduction of a new activity undergoes a rigorous process of assessment and discussion,²³ which in combination with the right of the Agencies to opt out of certain activities is a logical argument in favor of a conclusion that participating Agencies finance a certain activity on an *ad hoc* basis, where budget and payment shares allocations are settled when a particular project is launched. In other words, there is no comprehensive budget for all possible activities and needs of CEOS, but each new activity has to have its own budget and sources of financing.

This structure, however, does not clarify how the permanent organs are being financed. Since this issue has not been addressed in clear terms, interpretation of the CEOS underlying documents serves as the most reliable source of information. It has been noted that the Plenary meetings are hosted, organized and chaired by the CEOS Chair.²⁴ It is a sensible conclusion that 'organization' entails not only administrative support, but also provision of an appropriate location, supporting staff, required technology and the like, thus putting the burden of a Plenary meeting funding on the hosting Agency.

Further, all CEOS officers with the exception of the Executive Officer are elected among the CEOS Agencies representatives, and since they are not relieved from their responsibilities toward their respective Agencies, it is only logical that they are not being paid for the functions performed within CEOS.²⁵ The Working Groups, the Virtual Constellations, the Strategic Implementation Team, Ad Hoc working groups – all these organs are comprised of representatives of the Agencies which expressed their will to participate in respective organs and activities, thus it is similarly cogent that they are financed by their participants, and their budgets are just another question for discussion during the initial meetings.

²² Id.

²³ *Id.* at 10.

²⁴ Committee on Earth Observation Satellites, Terms of Reference (November, 2013), at 4, www.ceos.org.

²⁵ They are not paid by the CEOS; internal compensation packages of the respective Agencies are irrelevant here.

The CEOS Secretariat is being maintained by the six enumerated Agencies, which, it is logical to presume, have acquiesced to perform necessary functions and simultaneously have agreed to provide funding toward the Secretariat maintenance. Otherwise it would have lacked any logic to appoint these particular Agencies – which are not rotated, unlike the Chair office – without charging them with specific obligations in exchange for certain influence granted by way of performing important functions of the CEOS Secretariat.

Overall, taking into consideration that CEOS is primarily a forum facilitating coordination for the benefit of all participating Agencies, where undertaken activities depend on their will and no obligation exists to participate in all or any, funding does not present itself as a contentious issue because when you have a choice, presumably you are choosing what is best for you, and if funding is something you cannot agree with, there is always an opportunity to walk away. Getting back to the pertinent characteristic of a secretariat, it would be a stretch to affirm that the CEOS secretariat is financed from the uniform budget. First, there is no firmly established budget – otherwise, presumably, this matter would have been addressed in the underlying documents. Second, the inferences made about certain organs financing processes also do not assert that should a CEOS budget have existed, all organs constituting the CEOS secretariat would have been financed from such a budget.

Finally, whether the CEOS secretariat acts independently from the will of its participants and possesses an international character of work should be determined. The Secretariat formulates CEOS position statements and coordinates CEOS activities both internally and externally, the Chair is responsible for hosting and organizing the Plenary meetings, and the Executive Officer is charged with preparation of the Strategic Plan. These functions combined, the secretariat is charged with a broad scope of activities that are important for normal functioning of the Committee and its external perception. It has been noted earlier, however, that the precise breadth of functions of a secretariat is not indicative of the status of the organ performing such functions, though they might be helpful for the analysis.

Another matter that should be considered in this regard is the status of the secretariat's staff. With the exception of the Executive Officer, all other officials are also the officials of the relevant Agencies, but the CEOS underlying documents provide certain safeguards to preserve these officers' independence. For example, the Secretariat composition is not limited to those six Agencies in charge of its maintenance and includes other CEOS officials and Agencies

representatives. For the Chair, the CEOS underlying documents provide for an independency safeguard clause: The "CEOS Chair ... receives guidance from, and reports to, the CEOS Plenary."²⁶ Overall, while these provisions do not secure a true independent status of an international civil servant for the CEOS officers, they serve as an important tool in alleviating undue influence on officers. Thereby, while the CEOS secretariat is not staffed by independent civil servants, its composition provides a certain level of security against promotion of interests of a specific State or a group of States. Nevertheless, when secretariat members and representatives of CEOS participants are the same people, it is hard to see how the secretariat might act independently from the will of the entity's participants.

So the conclusion should be drawn that the CEOS secretariat, as comprised of the three analyzed organs, does not fully comply with the third characteristic of an international organization's secretariat, though taking into consideration the additional measures provided to ensure the secretariat's efficiency and representativeness, it comes very close to resemble features of an international organization's secretariat. On a linear graph where on the one side is an organization's secretariat and on the opposite is a conference's (or treaty's) secretariat, the CEOS secretariat would be just a few inches away from the organization and three full feet away from the conference's side.

8.2.3 International Legal Personality

International legal personality is characteristic only to international organizations, and its determination requires that all four criteria of legal personality are met. First, CEOS is undoubtedly an association of States and international organizations with lawful objectives. The latter characteristic most likely does not need further elaboration. When analyzing CEOS participation rules it has been established that States and international intergovernmental organizations are eligible for the Member status, and non-governmental entities can only become Associates – a status equal to an observer status, thereby leading to a conclusion that the former characteristic is also met.

²⁶ Committee on Earth Observation Satellites, *Terms of Reference* (November, 2013), at 4, www.ceos.org.

The second criterion is also present in CEOS: the underlying documents enumerate seven permanent CEOS organs and there is no reason to doubt their allegiance solely to CEOS.²⁷ But the legal powers and purposes of the organization as distinct from that of its members, which is the third criterion, are not present in CEOS. It seems that one can hardly make a sound distinction between the members' goals of successful fulfillment of their Earth observation projects using as little resources as possible and the CEOS mission to ensure "international coordination of civil space-based Earth observation programs ... to optimize societal benefit and inform decision making for securing a prosperous and sustainable future for humankind."²⁸

More broadly, the main role of CEOS is to provide a primary forum for international coordination of space-based Earth observations. Throughout the CEOS review it has been noted multiple times that the CEOS structure is very flexible, that the Agencies are free to propose new activities or to opt out of the activities, and a dissent of a few States cannot bar the project important for other Agencies. What is important, in the end, is that CEOS is designed to meet the needs and wishes of its participants, and the Agencies are the ones to decide what is going to happen and what is destined to be forgotten. The CEOS structure is designed to put minimal pressure on its participants by way of giving an opportunity to move forward with the project valuable for one group of Agencies and not others, at the same time leaving uninterested Agencies free from financial, legal and organizational burdens in fulfilling such a project.

CEOS also does not seem to have any separate legal powers. All CEOS officers, with the exception of the Executive Officer, are representatives of Committee's participants and not CEOS employees, thereby there can be no legal power over the staff exercisable by the Committee, and not the members. In the absence of headquarters, CEOS cannot exercise legal powers over its premises. The inherently flexible structure of cooperation precludes a possibility of certain regulations' enforcement, even to the extent enforcement is at all a possibility in international law regulating behavior of sovereign independent States. In other words, there is not a single power that can be exercised solely by CEOS, not its participants.

Based on these considerations, a conclusion is drawn that CEOS does not have legal powers distinctive from its participants. Thereby, it should be inferred that CEOS does not possess legal personality because it does not meet the third necessary criteria. For the sake of the

²⁷ These permanent organs are: The Secretariat, the Strategic Implementation Team, the CEOS Executive Officer, the CEOS Systems Engineering Office, the Troika, the Working Groups and the Virtual Constellations. See, p. 3-7.

²⁸ Committee on Earth Observation Satellites, *Terms of Reference* (November, 2013), at 2, www.ceos.org.

argument it may be added that CEOS fails to comply with the forth criterion of legal personality as well: in the absence of legal powers specific to CEOS as an entity, there can be no powers exercisable on any plane, whether national or international.

8.2.4 Term of Existence

At this point a little doubt is left that CEOS is a permanently functioning entity with permanent organs, annual meetings and goals requiring continuous long-term cooperation. CEOS was created in 1984 and although it has been growing ever since and took its current shape only in 2011, it has been continuously working for over thirty years now. Moreover, a glance at a table summarizing CEOS major meetings assures that an entity that holds five major meetings annually,²⁹ apart from monthly Secretariat meetings, cannot possibly work on any other than permanent basis.

8.2.5 Binding Force of Documents Produced

CEOS underlying documents stipulate: "Members of CEOS will use their best efforts to implement CEOS recommendations in their respective Earth observation programs," and further clearly acknowledge that "participation in the activities of CEOS will not be construed as being binding upon space-based Earth observation system operators," leaving their right to manage national programs unrestricted.³⁰ While the produced documents are designated "recommendations" and thereby cannot be expected to be complied with at all times, it might be suggested that there is a good reason for utilization of legally non-binding documents.

CEOS predominantly relies on coordination of the capabilities and assets of individual Agencies. CEOS recommendations might cover issues like coordination of infrastructure and crosscutting issues, and coordination of thematic and topical-based areas.³¹ While the main thrust of such recommendations is to promote solutions to reduce observational gaps and achieve better integration across the full range of Earth observations, the named goals cannot be achieved merely by means of cooperation and dialogue; technological compatibility is the required prerequisite. Satellite missions are technically complex, require rigorous management and

²⁹ Committee on Earth Observation Satellites, *Governance and Processes* (November, 2013), at 13, www.ceos.org. ³⁰ *Id.* at 2-3.

³¹ Committee on Earth Observation Satellites, *Strategic Guidance* (November, 2013), at 7, www.ceos.org.

control and an in-depth knowledge of the specifics of the particular project. Bottom line is that the security of operations cannot be jeopardized. Unconsidered and unquestioned compliance with each and every technical standard would essentially imperil safety and soundness of the project. Thereby 'soft law' obligations allow the Agencies to make thought-through decisions about compliance or non-compliance with a particular recommendation; at the same time, in case non-compliance is determined necessary and justified, the respective State or international organization is not considered in breach of international obligations.

Also it has been noted that the goal of CEOS activities is to facilitate informal coordination "to optimize societal benefit and inform decision making for securing a prosperous and sustainable future for humankind." By definition informal cooperation does not presuppose existence of strict, legally binding formalized obligations. More so, even formal cooperation through the mechanism of an international organization does not necessarily entail the power of such an organization to adopt any binding decisions. Hence, it should be concluded that a legally binding nature of produced documents does not *per se* predetermine (in)effectiveness of a particular mechanism of cooperation; rather, the choice between legally binding and 'soft law' obligations is completely at the discretion of cooperating States and is likely to depend on the distinct area of cooperation. In this particular case, obviously, the latter factor played its role in choosing non-binding recommendations as the type of documents produced within the Committee.

The reasons behind choosing 'soft law' regulation together with the fact that the underlying documents unequivocally declare that CEOS decisions should not be considered as binding would point toward a conclusion that the legally non-binding nature of the produced documents is an intentional, conscious decision the founding States made when creating this entity. By contrast, documents produced by an international conference are legally non-binding by default, and participating States' will cannot change the nature of the produced documents; if a document drafted during the conference becomes binding following the appropriate procedure, it moves to a treaty category. Although this distinction does not add anything to the legal characterization of the produced documents, it puts CEOS documents on a linear scale a bit closer to international organizations' documents than to those of conferences.

8.2.6 Existence of Opportunity to Modify Obligations

It has been concluded that the produced documents are legally non-binding, so it is simple logic that there is no need to provide for an opportunity to modify obligations. Just one detail should be mentioned: CEOS participants have the right to opt out of any activities, they have the right not to support any documents, and by doing so they are relieved from any, even moral or political obligation to use their best efforts in implementation of CEOS recommendations. Sir Jennings in 1980 when discussing United Nations General Assembly resolutions wrote that "recommendations may not make law, but you would hesitate to advise a government that it may, therefore, ignore them, even in a legal argument."³² In this sense, the right to opt out from 'soft law' obligations does make a difference.

8.3 Evaluation and Conclusions

8.3.1 CEOS Institutional Structure: A Hybrid?

A patchy and somewhat confusing result follows from the preceding analysis. CEOS membership is open to States and international organizations, and non-governmental entities might become Associates without a vote; it has a secretariat that comes close to resemble an international organization's secretariat, which works on a permanent basis, but does not possess international legal personality; it is not entitled to produce legally binding documents, but gives the right to opt out of even these 'soft law obligations'. Some criteria point toward CEOS designation as a conference, others signal its attribution to the international organizations category, and the CEOS secretariat does not fit into any category at all. This puts the analysis in a difficult situation since there are only two options to explain the identified variations. The first option is to admit that the preceding analysis was wrong, but obviously that is an unwanted outcome.

The second option is to ascertain the existence of mechanisms of cooperation that do not fit into any of the categories. This route is flawed in at least one way: if such deviations do exist, it undermines the premise that the proposed set of criteria is indeed a reliable one. But in reality what should be said is that any one-and-for-all classification cannot fully grasp each and every

³² R.Y. Jennings, *What is International Law and How Do We Tell It When We See It?* (1980), at 14, quoted in R.S. Jakhu and S. Freeland, "The Sources of International Space Law," in *Proceedings of the International Institute of Space Law 2013* (2014), at 477.

possible variation. Famous precepts suggest: "For every rule there is an exception," or "There are always exceptions to every generalization," or "Nature provides exceptions to every rule." Whatever phrase is preferred, the lesson to be learned is that a generalization, no matter how precise, will always remain a generalization requiring adaptation, flexibility and openmindedness to apply it in a meaningful and correct way to phenomena in the real world.

Moreover, at the outset it has been made clear that the present book will use the proposed set of criteria only as a starting point for further in-depth analysis of existing mechanisms of cooperation. Obviously, now is the point where the criteria should be treated as such, and not as a dogma. It has to be acknowledged that one starting point of the analysis is a generalization, that analysis of a particular mechanism of cooperation is true and correct precisely for the analyzed mechanism, and that the conclusions made as a result of such an analysis will again be a generalization – true most times, but demanding cautious application exactly owing to the everchanging nature of the objects of these conclusions.

International organizations researchers noted: "In recent decades several countries have often chosen to use 'informal' (or soft) international organizations rather than creating international organizations in the traditional sense. Soft international organizations, despite their informal structure, implement goals and values that are sometimes very important for their Member States and, in some cases, also for other States or groups of States of the international community."³³ Keeping in mind the authoritative view quoted, based on the preceding philosophical reflections and taking into consideration the complexity of the CEOS mechanism identified above, it is plausible to conclude that hybrids do exist, and that CEOS is one example of such. CEOS was created to be a permanent mechanism of cooperation and coordination that is characterized by substantial flexibility.

There are three CEOS characteristics that are normally attainable to an international organization.³⁴ The first is the membership rule allowing only States and international organizations to become participants with voting rights. Membership rules in international organizations vary widely according to a number of factors including 'political' or 'technical'

³³ A. Di Stasi, "About Soft International Organizations: An Open Question," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 44.

³⁴ Although, as mentioned before, the CEOS secretariat does not fully comply with all characteristics of an international organization's secretariat, it comes close enough to resemble an organization's secretariat and affirmatively reject possibility of its resemblance of a conference's or a treaty's secretariat. Thereby, for the purposes of the ensuing analysis the CEOS secretariat would be treated as indicating its comparability with that of an international organization.

character and level of integration. So generally membership is conditional upon certain prerequisites being satisfied.³⁵ In CEOS there are two layers of admission to membership: substantive and procedural. In order to meet the substantive requirement a national or international governmental organization must be responsible for a civil-based Earth observation program currently operational, or at least in the detailed design phase, and must have continuing activity in space-based Earth observation intended to operate and provide nondiscriminatory and full access to data that will be made available to the international community.³⁶ At this point it should be mentioned that actually the governmental agencies responsible for the enumerated activities and not the States themselves are admitted to the CEOS membership, but following the theory of attribution of conduct of organs to a State on the international plane, this distinction is not crucial for the purposes of the present book because in the end actions of these agencies constitute actions of a particular State.³⁷

So the CEOS membership is open only to States and international organizations conducting Earth observation on a continuous basis, thereby restricting membership to subjects that are actively involved in the activities, which are the scope of the CEOS mandate. Subject matter or technical membership limitation is not unusual in international practice and basically aims at uniting those subjects that are meaningfully involved in regulated activities and, thus, can both benefit from the membership and contribute to the cause of such an entity. Overall, there are multiple variations of necessary substantive membership requirements ranging from the statehood criterion to membership in another international organization to fulfillment of conditions enunciated in a constituent instrument. There is no clear-cut distinction between 'open' and 'closed' organizations because admittance of a new member even to a seemingly open organization aiming at universal membership – the United Nations and its specialized

³⁵ See, P. Sands and P. Klein, Bowett's Law of International Institutions (2009), at 537.

³⁶ Committee on Earth Observation Satellites, *Terms of Reference* (November, 2013), at 2, www.ceos.org. ³⁷ United Nations International Law Commission, "Responsibility of States for Internationally Wrongful Acts", in *Yearbook of the International Law Commission*, vol. II (2001), art. 4 ("The conduct of any State organ shall be considered an act of that State under international law, whether the organ exercises legislative, executive, judicial or any other functions, whatever position it holds in the organization of the State, and whatever its character as an organ of the central Government or of a territorial unit of the State."). *See* also, I Brownlie, *System of the Law of Nations: State Responsibility*, Part I (1983), at 132-66 (The author ascertains that the general rule is that the only conduct attributable to the State in the context of international law is that of its governmental organs or of others who have acted under the direction, instigation or control of those organs, in effect acting as agents of State.).

agencies, for example – is always conditional upon one or the other requirement.³⁸ In the end, founders of a particular international organization enunciate membership conditions, and there is no universal scheme to classify international organizations with regard to their 'openness', and there is no established inventory of the membership requirements for different types of international organizations.

There is a procedural requirement as well: the addition of Members is possible with the consensus of current Members of CEOS. Although that does not seem to be a significant obstacle, in the United Nations requirement of the Security Council approval of new members admittance led to a significant controversy and eventually elicited two International Court of Justice Advisory Opinions.³⁹ The procedural requirements are important tools in preserving an entity's integrity. There is a distinction between 'original' and 'admitted' members, and the 'original' members have a legitimate interest in ensuring that incoming subjects share the same interests as they were sharing when creating the international organization.⁴⁰

With regard to participation rules, CEOS obviously used the approach normally utilized in technical international organizations. The membership as well as an observer-like status can be granted only to those subjects that are active in the CEOS area of work, thereby guaranteeing that first, only those genuinely interested in coordination of Earth observation activities are a part of the Committee, and second, that CEOS members are capable of fulfilling its goals and contributing to its activities' development. Acknowledging that founding States are the ones to judge and weigh whether such composition is beneficial for the created entity, it should be concluded that a cooperative entity dealing with technically complex and project-specific activities has to limit its membership to subjects specializing in such activities; unrestricted membership would only lead to unnecessary complication of communication and would not add any benefits either for 'active' or 'passive' members. This inference is supported by a continuing long-standing practice of 'closed' specialized international organizations; should the limitation have proved unjustified it would have been eliminated long ago.

³⁸ See, P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 538-45; C.F. Amerasinghe, *Principles of the Institutional Law of International Organizations* (2005), at 106-10.

³⁹ Conditions of Admission of a State to Membership in the United Nations (Article 4 of Charter), International Court of Justice Advisory Opinion of 28 May 1948; and Competence of the General Assembly for the Admission of a State to the United Nations, International Court of Justice Advisory Opinion of 3 March 1950, available at www.icjcij.org.

⁴⁰ Cf., P. Sands and P. Klein, *Bowett's Law of International Institutions* (2009), at 538.

CEOS has one noteworthy feature closely related to participation rules. Constituent instruments of international organizations normally provide for a procedure of membership termination and might also include provisions for suspension of membership privileges. While the latter provisions are dictated by the need to provide for disciplinary measures, the former is a standard clause enabling members to voluntary withdraw from organization, and providing the international organization with the right to expel a member.⁴¹ The CEOS underlying documents are silent on this matter, and there is a proper reason for that. CEOS has been created as a mechanism for informal coordination; it aims at making Earth observation programs more efficient and at ensuring public nondiscriminatory data availability. In this case, every eligible Agency is an asset in achieving the Committee's goals.⁴² And in the absence of legally binding obligations disciplinary measures are unnecessary and even more so, counterproductive. The CEOS underlying document expressly asserts: "A best-effort organization like CEOS needs a mass of consistently active Members and Associates to ensure that key activities have sufficient human resources and that there is seamless transition of leadership at all levels."43 Therefore, given the specifics of CEOS activities and its goals, elimination of rules for membership termination is not an unfortunate omission but a thought-through decision beneficial for the entity as a whole and its participants.

It has been mentioned multiple times that CEOS is a mechanism for informal best-effort coordination. So it is perfectly logical that legal personality has not been bestowed onto this entity since no practical projects are being performed by CEOS itself and no legal documents are being adopted. CEOS is not supervising Earth observation projects of its Members; it merely coordinates their pursuits, synchronizes their efforts and 'mediates' in negotiation of recommended standards of performance. In handling these tasks international legal personality is an unnecessary luxury and maybe even an undesired complication.

At the same time, the continuous long-term nature of activities performed within this mechanism made permanent organs an utter necessity. Regular Plenary meetings and unceasing work within the Working Groups and Virtual Constellations demand an administrative

⁴¹ For an overview of practice of international organizations in using procedures of suspension and termination *see*, C.F. Amerasinghe, *Principles of the Institutional Law of International Organizations* (2005), at 114-125; J. Klabbers, *An Introduction to International Organizations Law* (2015), at 106-112.

⁴² In this regard an analogy to the Organization for the Prohibition of Chemical Weapons, which prohibits expulsion, is relevant. Art. VIII(2) of the Chemical Weapons Convention of 1992 states: "All States parties to this Convention shall be members of the Organization. A State Party shall not be deprived of its membership in the Organization."

⁴³ Committee on Earth Observation Satellites, *Governance and Processes* (November, 2013), at 16, www.ceos.org.

apparatus' support. At the crossroad of 'no legal personality' and 'permanent administrative organs' stands the hybrid nature of this mechanism of cooperation. While preserving the permanent institutional structure, a hybrid disposes of the legal personality, and substitutes the stability afforded by one with legal and institutional flexibility and informal methods of work. Despite the seeming diminished stability of such an arrangement, the presence of the permanent working organs supported by the will of participating States to achieve coordination, a hybrid manages to achieve a balance between institutionalization and flexibility.

On the one hand, States need a permanently working institution to secure proper communication and coordination of their Earth observation missions, and on the other, flexibility and 'soft law' order are essential because very few States would have entrusted legal regulation and supervision of their national space-based projects to an international entity. Moreover, such regulation and supervision would have required a much more complex structure, which, in turn, would have been an additional financial burden for the participating Agencies. Through amalgamation of international organization's features, including membership rules, presence of a separate organ performing secretarial functions and the permanent term of existence, with conference-like absent legal personality and legally non-binding documents a unique hybrid mechanism of cooperation has been created. The question is whether this hybrid structure has proved effective in achievement of the allocated goals, whether the gamble was worth it.

CEOS has three primary objectives: (1) to optimize benefits of Earth observation through cooperation of CEOS Agencies in mission planning and the development of compatible data products; (2) to serve as the focal point of coordination of Earth observation activities; and (3) to exchange policy and technical information to encourage complementarity and compatibility among space-based Earth observation systems.⁴⁴ The constituent documents identify three further goals of CEOS, which elaborate on the abovementioned primary objectives by way of adding technical details and procedures for their accomplishment.

CEOS Agencies are operating or planning around two hundred and sixty satellites with an Earth observation mission over the next fifteen years. These satellites will carry around four hundred different instruments. "This sustained investment by the space agencies will ensure the provision of information of unique value in both public and commercial spheres, derived from

⁴⁴ Committee on Earth Observation Satellites, *Strategic Guidance* (November, 2013), at 4-5, www.ceos.org.

the measurements of a diverse range of geophysical parameters and phenomena.^{"45} As early as 1997, CEOS was praised as "the premier world body for coordinating and planning civilian satellite missions for Earth observation."⁴⁶ Scholars have pointed out the undisputed achievements of the Committee in publication and network services, and in its efforts to include developing countries into enjoyment of obtained data and to adapt the technology utilized by developed countries to needs and capacities of developing countries.⁴⁷ The active inclusion of commercial, technology-advanced and service-oriented Earth observation in the planning and operation of robust Earth observing systems, which can equitably meet diverse needs of developed and developing countries was seen as a major challenge for CEOS in the years to come.⁴⁸ Scholars generally agree that "there is clearly an important role for the Committee on Earth Observation Satellites to play in the coordination of the various national [Earth Observation] programs into a truly integrated global observing system."⁴⁹

Nowadays, an elaborate methodology for defining and measuring success has been outlined in the CEOS document "Strategic Guidance". Success is defined as the achievement of the goal as indicated by measurable results for its stakeholders, or, in cases where results cannot be measured directly, CEOS success may be attained when the stakeholders involved perceive that desired results are obtained. Success measurement requires identification of three elements: initial project needs and requirements; milestones, schedule, deliverables, and success criteria specific to each individual project; and the appropriate level of project management and the channels by which to communicate project status.⁵⁰

For example, the success of the CEOS Working Group on Calibration and Validation was measured based on the results of its activities in three areas: coordination, communication and geophysical parameter validation. The fact that CEOS had begun to examine ways of extending international cooperation beyond consideration of the space component alone and had launched

⁴⁵ Committee on Earth Observation Satellites, *The Earth Observation Handbook: Special Edition for Rio* +20 (Updated for 2014), www.ceos.org.

⁴⁶ B. J. J. Embleton and J. Kingwell, *Coordination of Satellite and Data programs: The Committee on Earth Observation Satellites' Approach*, Acta Astronautica Vol. 40, No. 2-8 (1997), at 397.

⁴⁷ *Id.* at 402-404.

⁴⁸ *Id.* at 404-405.

⁴⁹ E. Chuvieco, *Earth Observations of Global Change* (2008), at 45.

⁵⁰ Committee on Earth Observation Satellites, *Strategic Guidance* (November, 2013), at 8, www.ceos.org.

an Integrated Global Observing Strategy was considered an additional evidence of success in this particular area of work.⁵¹

The Working Group on Capacity Building and Data Democracy formed in 2011 has two objectives: establishing effective coordination and partnership among CEOS Agencies offering Earth observation education and training, and working with CEOS entities to address data accessibility. To these ends a variety of activities has been undertaken, including partnering with local and regional providers to increase effectiveness and decrease duplication of efforts, focusing on user needs for data and capabilities, conducting remote sensing workshops and seminars, publishing of training materials, and publicizing resources, datasets and software.⁵² All other currently functioning Working Groups are also conducting activities relevant to their proclaimed goals and objectives.

It is reasonable to conclude, thus, that the results of CEOS actions present themselves as an almost complete fulfillment of the established purposes. The overview of the former and current CEOS Working Groups' activities, the growing number of supervised projects, and more generally the increasing participation and the ongoing efforts to sustain effectiveness of the mechanism for the past thirty years, all signal that the work is being done. Without the inside information it is hard to assess with a certain level of confidence practically achieved results in some objective form, be it numerical or percentile. But what is clear from the presented overview is that States are willing to participate, States are willing to disclose their planned projects and to work toward their utmost effectiveness and elimination of redundancies among national spacebased Earth observation programs.

8.3.2 Why Choosing a Hybrid

Scholars have opined that "because of the recent and impressive growth of space activities with international cooperation elements in them, various forms of establishing such relations have flourished."⁵³ A more recent trend has emerged in addressing general-purpose issues with an obvious impact on mandates and political objectives; and CEOS is one such example of a somewhat informal common institution able to represent views of its participants,

⁵¹ See, A. S. Belward, International Cooperation in Satellite Sensor Calibration: The Role of the CEOS Working Group on Calibration and Validation, Adv. Space Res. Vol. 23, No. 8 (1999), at 1445-47.

⁵² The Working Group on Capacity Building and Data Democracy, http://ceos.org/ourwork/workinggroups/wgcapd/ ⁵³ M. Ferrazzani, "Soft Law in Space Activities," in G. Lafferranderie and D. Crowther (eds.), *Outlook on Space Law over the Next 30 Years* (1997), at 439.

which preserve their distinct identity, to act and to take decisions in practical areas of outer space exploration and use.⁵⁴ These trends should be understood in the light of the so-called 'Washington consensus' that led COPUOS and its Subcommittees to be grinding almost to a complete halt it recent years. Its principal aim was "to liberalize and deregulate national and international markets and as a consequence reduce the influence of states and governments in economic and social matters."⁵⁵ Liberalization and deregulation objectives combined with the need to continue cooperation logically result in informal legally non-binding mechanisms of cooperation.⁵⁶

The conclusion is offered that these contemporary trends were engendered by the growing exploitation of outer space and the need to use its resources in an efficient and sustainable way.⁵⁷ A growing practical utilization of outer space, where space programs and projects become more intensive and regular, generated a need for a rational use of space capacities. Thirty-one CEOS Members and twenty-four Associates are operating or planning hundreds of space-based observation missions. These impressive numbers, which reflect only Earth observation missions, while there are many more other space-based missions – it was estimated that a total of approximately five-thousand and five-hundred launches were made since 1957 – present a convincing evidence of how busy outer space has become.⁵⁸ Outer space traffic regulation proposals that have been actively discussed during the last decade also serve as evidence that both scholars and practicing lawyers consider an increasing number of space launches worthy of a specialized traffic regime. "Space has started to host all sorts of human activities, or better, play a fundamental role in them: military, scientific, administrative, crime

⁵⁶ For an overview of different theories regarding proliferation of less-than-formal transgovernmental networks that nowadays are expanding rapidly and oftentimes substitute for more formal intergovernmental organizations and treaties *see*, K. Raustiala, *The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law*, 43 Va. J. Int'l L. 1 (2002); M.-C. Runavot, "The Intergovernmental Organization and the Institutionalization of International Relations," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015); A. Di Stasi, "About Soft International Organizations: An Open Question," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015).

⁵⁴ Cf., M. Ferrazzani, "Soft Law in Space Activities," in G. Lafferranderie and D. Crowther (eds.), Outlook on Space Law over the Next 30 Years (1997), at 439-41.

⁵⁵ P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 13.

⁵⁷ Cf., M. Hofmann, "Sustainability of Space Environment: Draft UNGA Resolution", in *Proceedings of the International Institute of Space Law* (2012), at 639-40.

⁵⁸ It was estimated that since 1957 till December 31, 2014 a total number of 5438 launches were performed, including the unsuccessful ones. See, http://www.spacelaunchreport.com/logyear.html.

fighting and anti-terrorism, commercial, and humanitarian – and thus in regulating the behavior of all sorts of humans to go with them."⁵⁹

A logical extension to the intrinsic connection between outer space and the world as we know it today is that "everyday life would be seriously degraded, if not impossible, without the utilization of space-based science and technology. This holds true for the present generations, but also for the ones to come. Accordingly, space has to be preserved for the future. Sustainability can be achieved through a fair and responsible use of space."⁶⁰ At least one of the CEOS primary objectives, namely the optimization of benefits of Earth observation through cooperation of CEOS Agencies in mission planning and the development of compatible data products, focuses precisely on promoting sustainability of outer space exploitation albeit through the prism of preventing redundancy in national space-based Earth observation programs.

In the context of the space debris problem analysis authors have been pointing out that Earth orbits are a limited resource requiring efficient and responsible utilization. The fact that the space debris issue has become one of the major topics in international space law triggering intensive work on international and national levels alike, is by itself a vocal argument that contemporary outer space exploitation has to be sustainable; the need is already here.⁶¹

Against this background cooperation becomes more relevant and rewarding for spacefaring States. It has been noted that in today's world there is no longer room for 'solitary adventures' on the part of individual States, and creation of integrated entities seems to be the 'postmodern passport to globalization'.⁶² At the same time, while States are open to cooperation, there is much less longing for creation of formal mechanisms of cooperation. The last three decades showed that States have become more wary of legally binding mechanisms than they were in the beginning of the space era; all recent developments in international space law were in the form of 'soft law' and there is no evidence that States are ready to break this equilibrium between the need to cooperate and the reluctance to become bound by additional legal

⁵⁹ F. G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 125.

⁶⁰ R. Wolfgang, K.-U. Schrogl (eds.), *The Fair and Responsible Use of Space: An International Perspective* (2010), at 12.

⁶¹ Cf., H.R. Hertzfeld, "A Roadmap for a Sustainable Space Law Regime", in *Proceedings of the International Institute of Space Law* (2012).

⁶² See, P. Pennetta, "International Regional Organizations: Problems and Issues," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 80-81.

obligations. With that perspective, the emergence of hybrid mechanisms of cooperation seems consequent and logical.

The hybrid mechanism, as represented by the CEOS example, does not impose any legally binding obligations, which is both its advantage and to some extent a disadvantage. On the one hand, it incentivizes States to participate – because its activities are beneficial but with no strings attached, and on the other, it limits effectiveness, or more precisely enforceability, of the adopted decisions. In the end, the overall effectiveness of such a mechanism lies in the balance between the benefits its participants gain, restraints on freedom of action brought about by way of their participation, and their willingness to put an effort into cooperation and coordination.⁶³ Continuous work of permanent organs comprised from participants' representatives ensures that results are effective and practically feasible, at the same time providing an opportunity to introduce new activities as they emerge. And an informal, lacking international legal personality nature of the mechanism and its legally non-binding decisions, first, reduce the costs of the mechanism's maintenance, and second, provide States with much-treasured flexibility and freedom of action.

These general considerations, however, are far from being a universal recipe for success. Each mechanism is unique in its history, sphere of activities, participation, methods of work and the like. Analysis of a particular mechanism can only give guidance regarding the necessary components of successful cooperation. But as always, balance and proportionality is what makes a set of fine features a masterpiece. It is argued that the topic the mechanism is working on is the most important element of all. Structure and methods of work can change depending on the will and needs of participants and changing circumstances; it is the core trait of a flexible hybrid mechanism of cooperation that it can be easily modified. But the subject matter is the cornerstone, the foundation of cooperation. It, of course, can be extended or modified throughout the mechanism's existence, but the initial choice of the subject matter presupposes how the international community would react to this new entity. If the subject is relevant and timely, chances are that a majority of States and international organizations active in this area would join the new mechanism. That, in turn, would lead to adaptation of working procedures so that they

⁶³ CEOS cooperation does not fall within the category of mere coordination, where cooperation through international law mechanisms comes naturally and without much resistance on any side. Hence, other incentives toward cooperation apart from mere convenience are at play here. For relevant discussion *see*, A.T. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 26-28.

are appropriate for all, which would lead to a prosperous work of the mechanism, which finally leads to its overall effectiveness. But if the subject matter turns out to be either too narrow or too broad, or include highly controversial issues, or is simply not propitious, the mechanism's participation is destined to be scarce, which consequently would not allow it to develop into a well-respected influential institution.

By way of conclusion it is suggested that a hybrid mechanism of cooperation, fusing together structural flexibility and continuous character work, is a distinctive feature of the modern state of space cooperation and would continue to be used to coordinate national space activities. On the one hand, the wariness of new legally binding documents necessitates utilization of informal arrangements and space activities. On the other, due to the increasing technical and organizational complexity of space projects, cooperation greatly benefits the projects (and in some cases cooperation is the only way to make the project at all possible). Simultaneously, the complexity of modern and future projects demands flexibility in their operation to ensure that an institutional mechanism can be easily adapted to the developments in the project implementation or operation.

While details may vary, the main idea of such a mechanism is to perform long-term goals using informal methods. Utilization of a hybrid mechanism corresponds with the identified trends of contemporary international law, namely inclination toward 'soft law' regulation and the need to promote sustainability of the expanding outer space exploitation, at the same time addressing them both simultaneously. It is, furthermore, plausible to suggest that CEOS is one such occasion in the arena of space activities where 'soft law' regulation fulfills "an indispensable function in the development of a proper international space law framework for such activities."⁶⁴

A hybrid mechanism of cooperation should not be equated to a compromise, neither should it be labeled a weaker version of an international organization. It is true that in the sphere of cooperation a hybrid mechanism, and CEOS more particularly, is capable of providing longterm support of a specified activity similar to that of an international organization. But hybrid mechanism's functions end right here, and an international organization's functions just begin at this point. A hybrid mechanism focuses on coordination, eliminating any other functions that

⁶⁴ F.G. von der Dunk, "Contradictio in terminis or Realpolitik? A Qualified Plea for a Role of 'Soft Law' in the Context of Space Activities," in I. Marboe (ed.), Soft Law in Outer Space: The Function of Non-Binding Norms in International Space Law (2012), at 53.

most international organizations are dealing with, like control over the premises, employment relations, budget drafting and so on. By way of limiting the functions the mechanism is charged with, a de-formalization of its structure becomes possible. While the drawbacks of hybridity, such as non-enforceability of obligations and lack of legal precision, should be acknowledged, it should also be acknowledged that it is the answer and the result of the most recent trends in space activities. CEOS, being a prominent example of a hybrid mechanism, proves that efficiency and flexibility are not mutually exclusive in international legal cooperation.

Chapter 9. Code of Conduct for Outer Space Activities

9.1 Overview

The International Code of Conduct for Outer Space Activities developed by the European Union ("Code") is one of the most recent developments in international space law.¹ It is intended to summarize 'rules of the road' for outer space activities in the form of a 'soft law' instrument.

While a lot has been said about the nature of the proposed document and about the effectiveness of the suggested guidelines and principles,² less attention has been paid to the mechanism of cooperation advanced by the Code. Although the Code provides a comparatively perfunctory outline of the proposed mechanism of cooperation, the fact that a 'soft law' instrument provides one is a notable development in international space cooperation.

The present chapter is aimed at reviewing the mechanism of cooperation endorsed by the Code of Conduct, examining proposed ways and means of international cooperation, and analyzing how that affects its operation. Conclusions are offered about the nature of the envisioned mechanism of cooperation, its distinctive features are identified, and determination is made about the overall effectiveness of the established mechanism of cooperation.

The Code of Conduct is one example of an arrangement underlying the correctness of a conclusion drawn by many authors that as a consequence of the codification process in space lawmaking there now appears a tendency to produce relevant international instruments containing non-binding principles, norms, standards or other statements of expected behavior in the form of recommendations, charters, terms of reference, guidelines, and codes of conduct.³ Following two 2006 United Nations General Assembly Resolutions⁴ the European Union submitted a joint reply to the United Nations General Assembly in 2007, "in which it mooted the

¹ Here the analysis is based on the latest version of the Code of Conduct. European Union, *International Code of Conduct for Outer Space Activities*, version from March 31, 2014, http://eeas.europa.eu/non-proliferation-and-disarmament/outer-space-activities/index_en.htm, while conclusions arrived at by the scholars in regard to the previous versions and still relevant for the latest version will also be considered.

² For such analysis *see*, A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012).

³ See, P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 25.

⁴ UNGA Res. A/RES/61/58 "Prevention of an arms race in outer space", 6 December 2006; and UNGA Res. A/RES/61/75 "Transparency and confidence-building measures in outer space activities", 6 December 2006.

plan of a "code of conduct on space objects and space activities", to complement the existing space legal framework."⁵ By 2008 the European Union Council adopted the first draft of the Code; ensued bilateral consultations led to the second draft in 2010. When in 2012 the United States announced that it would not sign up to the prospective instrument and proposed to launch multilateral negotiation process to develop an acceptable text of the Code of Conduct,⁶ international negotiations including States other than the European Union members were commenced.

In 2013 the European Union tabled the new revised draft International Code of Conduct and launched an open-ended multilateral consultations process in order to get support from the international community for such a code. The consultations process consisted of three openended multilateral meetings, the first one in Kiev, Ukraine in May 2013, the second one in Bangkok, Thailand in November 2013, and the third and final one in Luxembourg in May 2014. More than 80 States have participated overall in this consultations process. During the final meeting the most vocal opponents of the Code, Russia and China, had again expressed their reservations to the proposed document and confirmed their strong inclination toward the "Treaty on the Prevention of the Placement of Weapons in Outer Space and the Threat of Force against Outer Space Objects" they first presented at the United Nations Conference on Disarmament in 2008. Until now "it does not appear to be clear for anyone, including member states of the European Union themselves, what the next step for the code is."⁷

The Code of Conduct is a "non-legally binding and voluntary act of guidelines intended to highlight what the international community generally agrees to be responsible behavior in space."⁸ The opening words of the Code "The Subscribing States" at the outset hint at the legally non-binding nature of the document. Paragraph 1.4 of the Code further declares: "Subscription to this Code in open to all States, on a voluntary basis. This Code is not legally binding, and is without prejudice to applicable international and national law." Thus, the Code of Conduct is a

⁵ J. Wouters and R. Hansen, "The Other Triangle in European Space Governance: The European Union, the European Space Agency and the United Nations," in *Proceedings of the International Institute of Space Law 2013* (2014), at 666.

⁶ Id.

⁷ G. Irsten, *Code of Conduct for Outer Space Activities ends*, Reaching Critical Will (May, 2014) http://reachingcriticalwill.org/news/latest-news/8907-the-consultation-process-for-the-international-code-ofconduct-for-outer-space-activities-ends.

⁸ V. Samson, "ICoC: Need of the Hour", in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012), at 136.

legally non-binding document having a purpose "to enhance the safety, security, and sustainability of all outer space activities pertaining to space objects, as well as the space environment."⁹ Leaving aside analysis of the proposed legal regime of "safety, security and sustainability," the institutional mechanism of cooperation established by the Code in order to achieve the proclaimed purposes will be reviewed.

Section III of the Code entitled "Cooperation Mechanisms" is meant to address in detail means of cooperation between the Subscribing States that include: notification of outer space activities, exchange of information, and consultations. Notification of outer space activities and exchange of information are the two least formalized means of cooperation that should be conducted through the channels and by methods determined by the Subscribing States, and only to the "greatest extent possible,"¹⁰ leaving States under no obligation to notify of each and every event related to outer space activities. Similarly, States should share information on an annual basis, but only "where available and appropriate."¹¹ Consultations, in accordance with Part 7 of the Code, are supposed to be commenced in cases where a Subscribing State or States have reason to believe that activities of another State are or may be contrary to the provisions of the Code. Consultations should be held in any way or manner satisfactory for the interested States, and are supposed to conclude with a "mutually acceptable solution in accordance with international law."¹²

In Chapter 1 it has been proposed that a mechanism of cooperation should be understood as an established process defining legal measures and methods for coordinated activities in achievement of a specific objective, and that mere utilization of diplomatic and other ordinary means of inter-State communication does not amount to creation of a separate mechanism of cooperation.¹³ With this definition in mind, the "cooperation mechanisms" set up in Section III of the Code do not constitute separate mechanisms at all. Consultations and exchange of information should be conducted through diplomatic channels or other methods mutually determined by the Subscribing States, and only notifications may be transferred through the Central Point of Contact unless States determine that other method is more convenient. In the end, the Section requires that States engage in certain contacts to extend the Code's objectives,

⁹ International Code of Conduct for Outer Space Activities, at 1.1.

¹⁰ *Id.* para. 5.1.

¹¹ *Id.* para. 6.1.

¹² *Id.* para. 7.1.

¹³ Supra, at 1.3.

but it does not create a specialized process for doing so. Rather, the Code summarizes ways and means the Subscribing States might wish to use in different situations, but it does not establish a single mechanism of cooperation – contrary to the name of the Section these three Parts are put into. Weakly worded language used throughout the Section that "States may also consider," "on a voluntary basis," "to the extent feasible and practicable," "when consistent with national law," and the like only underlines such a conclusion.

While that might be a weakly and too broadly worded Section, it does not stand there for no reason. The Code of Conduct is a legally non-binding document that has an ambitious goal of summarizing 'rules of the road' in outer space exploitation. The Section enumerates events that are deemed worthy of taking steps to inform about, for example, the launch of space objects, the presence of malfunctioning space objects, and collisions. It encourages States to share information about their space strategies and major space programs, and to organize activities to familiarize other Subscribing States with their programs and policies. Finally, it recommends that consultations should ensue to resolve situations where a State has allegedly acted contrary to the provisions of the Code.

Overall, the Section emphasizes that extensive communication is a necessary prerequisite for effective cooperation; it highlights the areas and questions that should be taken seriously by the Subscribing States, and appropriate steps should be considered. The legally non-binding nature of the Code, of course, aggravated by weak and somewhat hollow phrases quoted above does not make it possible to demand this kind of behavior from States. But it can undoubtedly attract attention to the desirability of proper communication, and only practice will prove whether the effort has paid off. At this point it is suggested that most likely States would provide information about a fraction of planned strategies and projects, that the consultations mechanism would be stillborn and States would instead use their customary means of communication, and that notifications would be a precious rarity, as it turned out to be in the case of the Hague Code of Conduct Against Ballistic Missiles Proliferation.¹⁴ Hopefully, practice will prove otherwise.

Section IV entitled "Organizational Aspects", by contrast to Section III, is the one to set up the mechanism of cooperation endorsed by the Code of Conduct. It calls for convening of

¹⁴ Although the Code was signed by 134 States, in 2009 only 13% of launches subject to the Code regulations were reported, and neither Russia nor the United States has notified of their launches. *See*, L. Marta, "The Hague Code of Conduct Against Ballistic Missile Proliferation: 'Lessons Learned' for the European Union Code of Conduct for Outer Space Activities'', 34 *ESPI Perspectives* (2010).

annual meetings of the Subscribing States, establishment of the Central Point of Contact, and development of an electronic database and communication system. The Code also allows calling for additional meetings of the Subscribing States "if decided by consensus of the Subscribing States at previous meetings or as communicated through the Central Point of Contact."¹⁵

Annual meetings are envisioned as a mechanism "to define, review and further develop this Code and facilitate its implementation."¹⁶ The Code lists four topics that 'could' be included in the annual meetings' agenda: review of the implementation of the Code, modification of the Code, discussion of additional measures that can be necessary, and establishing procedures regarding the exchange of notifications and other information. Usage of the verb 'could' in the relevant provision suggests that the list of topics is not exhaustive. The absence of a clear indication that an agenda might include other issues should the Subscribing States decide so probably is not intended to signal that the Code's cooperative mechanism is a rigid and formal one. But comparison to the formulations used in, for example, the Committee on Earth Observation Satellites (CEOS) underlying documents – which are also legally non-binding – forces one to wonder whether this mechanism of cooperation is actually an informal one.

The structure, organization, phrasing of the Code of Conduct are all significantly more formal than those of the CEOS documents. The Code covers general principles endorsed by the Code, it reaffirms commitment to the "Charter of the United Nations and existing treaties, principles and guidelines relating to outer space activities;"¹⁷ it emphasizes twice that the endorsed measures and norms are without prejudice to the existing legal framework and should be considered as complementary.¹⁸ Taking into consideration that the Code of Conduct has been re-drafted and amended multiple times in the course it its 7-year history, mindful of the strong oppositions of the United States to the 2012 version of the Code and ensuing multilateral consultations, it is logical to infer that the Code is indeed aiming at legal precision and unambiguity. The meticulous choice of words necessary to achieve the desired clarity could have been the reason for a cautious usage of open-ended formulations akin to "and others as decided by the Subscribing States" throughout the text of the Code; in fact, such formulations are only used three times, and two of them when describing means of inter-State communication that can

¹⁵ International Code of Conduct for Outer Space Activities, para. 8.1.

¹⁶ Id.

¹⁷ *Id.* para. 3.1.

¹⁸ *Id.* para. 15 of the Preamble, 1.3.

be used for information exchange and notifications. Overall, the Code of Conduct seems to be using relatively less flexible formulations in establishing the structure of cooperation.

Decisions at the meetings, both substantive and procedural, are to be adopted by consensus. The Code does not provide additional details about the exact procedure for consensus establishment, and presumably it should be understood in a conventional way. The International Organization for Standardization describes consensus as follows: "General agreement, characterized by the absence of sustained opposition to substantial issues by any important party of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. Consensus need not imply unanimity."¹⁹

Decisions with regards to amendment of the Code, by contrast, literally require unanimity. The Code pronounces that any modifications "are only to apply after written consent is received by the Central Point of Contact via diplomatic note from all Subscribing States." This is a good example supporting the earlier inference that the Code itself and by extension its mechanism of cooperation are not intended to be especially flexible. Unanimity is rarely required in international practice.²⁰ The most obvious example is the voting procedure in the United Nations Security Council requiring unanimity among the permanent members for decisions on all matters, except procedural.²¹ But over time even this strict procedure was relaxed,²² and nowadays abstention of a permanent member is not considered an obstacle for adoption of the resolution.²³

But the Code of Conduct, being a legally non-binding document, includes such an unusually strict voting procedure to amend its 'soft law' provisions. Origins of and reasons for the Security Council voting procedure have been discussed at great lengths, but whether

¹⁹ ISO/IEC Guide 2:2004, Standardization and Related Activities -- General Vocabulary, n. 1.

²⁰ Hirschman explained that unanimity was rarely used in both firms and international organizations because an effective oversight with a possibility to introduce necessary changes to an organization requires unanimous support of all States, making the mechanism of control relatively weak from the standpoint of an individual State. *See*, A.O. Hirschman, *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations, and States* (1970). From the collective standpoint, the organization whose modification is subjected to unanimous agreement of all parties is in effect the most stable, since even active majority would be incapable to push for changes.

²¹ Art. 27 of the United Nations Charter.

 ²² For detailed overview *see*, R. Sonnenfeld, *Resolutions of the United Nations Security Council* (1988), at 46-49.
 ²³ Some suggest that a veto right – presumably an inevitable consequence of unanimity voting procedure – "is a left-over from the power-oriented doctrine of international law of past centuries," and is not compatible with democratic principles. *See*, H. Köchler, "The Voting Procedure in the United Nations Security Council," in *Studies in International Relations*, XVII (1991).

criticized or praised, there is little doubt that wide support and agreement are mandatory prerequisites for the decision-making in the Security Council due to its exceptional powers. Similar line of reasoning, quite clearly, cannot be used to explain the unanimity requirement with regard to the Code of Conduct. One possible explanation for such an extravagant choice of voting procedure is that States, which participated in the lengthy drafting and negotiation process, just do not want this Code to be amended, and establishment of the unanimity requirement would effectively prevent any modifications. The other reason might be that it is a concession: a State or a group of States made their support conditional to inclusion of this provision that in effect gives this particularly interested State or a group of States confidence that no additional obligations would ever be introduced without their express consent.²⁴ It has to be kept in mind, though, since the Code is intended to codify 'rules of the road' and evolve along with evolution of best practices, the willingness to preserve the Code's changelessness, if that is the reason behind the unanimity requirement, is contrary to the overarching goal of the Code.

As per paragraph 8.3, "at the end of each regular meeting the Subscribing States are to elect by consensus their Chair for the period until the end of the next regular meeting." This procedure guarantees that, first, the Chair is a rotatable short-term position, and second, that election of the Chair necessitates a wide support for the proposed candidacy and in principle strong opposition of just one Subscribing State might be enough to effectively veto election of an unwelcome candidate. The cautious approach to the Chair election procedure is somewhat surprising in the absence of any indication of the scope of the Chair's responsibilities. In principle, Subscribing States are free to endow the Chair with broad rights and responsibilities common for presiding officers in international organizations,²⁵ or to limit his mandate to symbolical actions of opening and closing the meetings, giving the word to the next speaker, and the like. Moreover, it is not clear whether the Chair is envisioned merely as the meetings' presiding officer, or more broadly as the head of the secretariat-like organ and thus has a status akin to a Secretary-General-like officer of an international organization.

²⁴ Although the Code of Conduct, whether with or without any changes to it, is legally non-binding, 'soft law' documents still bear certain obligations, though of mostly political and reputational character. While binding documents are the main perceived threat to States' freedom of action (e.g. *see*, A. Guzman, *Doctor Frankenstein's International Organizations*, 24 Eur. J. Int'l L. 999 (2013), at 1023), the more active use of non-binding documents makes States wary of taking upon additional commitments even as established by 'soft law' documents.

²⁵ For more information see, J. Kaufmann, Conference Diplomacy: An Introductory Analysis (1988).

9.2 Six-Criteria Analysis

9.2.1 Membership/Participation

Subscription, or participation, according to the express provisions of the Code of Conduct, is open to any State, regional integration organization which has competences over the matters covered by the Code – which is presumably a longer definition of the European Union, and international intergovernmental organizations which conduct outer space activities if a majority of its members are Subscribing States to the Code. Non-governmental entities are excluded from participation due to the specifics of the substantive part of the Code. First, the Code of Conduct reiterates general principles of international space law, including an obligation to refrain from threat or use of force against the territorial integrity or political independence of any state. Second, it reaffirms commitment of the Subscribing States to existing international legal instruments relevant to outer space activities. Finally, the Code in Section II commits Subscribing States to "establish and implement policies and procedures to minimize risk of accidents in space," to limit any activities in outer space operations, which may generate longlived space debris, and "to adopt and implement, in accordance with their own internal processes, the appropriate policies and procedures or other effective measures in order to implement the Space Debris Mitigation Guidelines of the United Nations Committee for the Peaceful Uses of Outer Space."²⁶ Implementation of these policies can be achieved on a national governmental level by way of appropriate legal incorporation of relevant standards of space operations. Taken together, all these substantive obligations provided for in the Code are directed at sovereign States, can be complied with by international organizations as well,²⁷ but cannot be fulfilled by non-governmental entities.

Furthermore, in accordance with Article VIII of the Outer Space Treaty, a State on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object. Along the same lines, in accordance with Article VII of the Outer Space Treaty and Articles I(c), II-V of the Liability Convention, States are to be held squarely liable for damage

²⁶ International Code of Conduct for Outer Space Activities, para. 4.1, 4.4.

²⁷ Not all enumerated obligations can be complied with by international organizations, for example, an international organization cannot adopt and become a party to the Outer Space Treaty. But international organizations are capable of complying with most principles and obligations enumerated in the Code. Imposition of relevant obligations by the organization on its members if a particular member has not yet implemented these obligations or implemented to a different extent is an additional legal issue that should be resolved separately and does not immediately affect possibility of international organizations' compliance with the principles and obligations of the Code of Conduct.

caused by space objects launched into outer space, even if such objects were built, launched and operated by private entities. International space law *strictu sensu* is State-centered,²⁸ and international organizations possess a 'secondary' status,²⁹ while non-governmental entities are excluded from international regulation altogether. The Code of Conduct, continuing the tradition of space law 'State-centricity' addresses its recommendations to subjects of international law – States and international intergovernmental organizations – and literally eliminates possibility of private entities' participation in the Code of Conduct.

9.2.2 Secretariat

The Central Point of Contact plays a cohesive throughout the mechanism of cooperation established by the Code of Conduct. On the one hand, it serves as a secretariat at the annual meetings, and on the other, it is responsible for creation and management of the electronic database and communications system. Overall, the whole part outlining functions of the Central Point of Contact is rather indeterminate: it is unclear how it will be comprised, where it will be located, how it will be funded. Authors point to the two possible options for its establishment: either one of the Subscribing States could voluntarily take on the role of the Central Point of Contact following the example of Austria in the Hague Code against Ballistic Missile Proliferation, or, since the Code is the initiative of the European Union, it could reside with a European Union institution.³⁰ Paragraph 9.4 calling for the best use of existing facilities does not resolve this dilemma, since both potential Subscribing States and the European Union might have resources available to locate, staff and manage the Central Point of Contact.

The Central Point of Contact, in addition to secretarial functions and database-related responsibilities, is tasked with: receiving and communicating notifications that a State subscribes to the Code; serving as a mechanism to facilitate communication of exchanged information; exercising organizational functions in connection to preparation and implementation of familiarization activities in the course of information exchange as provided by the Section III; and carrying out other tasks as decided by the Subscribing States. It has been noted that "the smooth running of the administration of the Code depends greatly on the mandate of the [Central

²⁸ Cf., P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 45-46.

²⁹ See, W.F. Foster, "The Convention on International Liability for Damage Caused by Space Objects," in C.B. Bourne (ed.), *The Canadian Yearbook of International Law*, Vol. 10 (1972), at 180.

³⁰ See, C. Brünner, A. Soucek, *Outer Space in Society, Politics and Law* (2012), at 543.

Point of Contact]. In this context, the [Immediate Central Contact] of the [Hague Code of Conduct against Ballistic Missiles Proliferation] can serve as an example. While it can remind states of their obligations, it cannot pressure them on their declarations on [Transcontinental Ballistic Missiles].³¹

While the comparison is to the point, the Code of Conduct does not entitle the Central Point of Contact to remind States of their obligations; a close reading of the paragraph 9.1 enumerating its responsibilities does not envisage direct contacts of the Central Point of Contact with the Subscribing States on its own behalf, but only as an intermediary to "facilitate communication" between the States. The Subscribing States are free to task the Central Point of Contact with other functions, including communicating reminders of States' responsibilities, but somehow formal inclusion of such a function seems unlikely.

Relations between the Chair and the Central Point of Contact are of interest. The logical question is whether the Central Point of Contact acting as an annual meetings' secretariat and the Chair presiding over these annual meetings are in some way interrelated or subordinated. The Code does not give an answer to that, there is no practice of implementation of the Code, read 'State practice', and hence at this point the only available source to base the conclusions on is the scarce information provided in the text. Since the Central Point of Contact is tasked with serving as a secretariat at the annual meetings and the Chair presides over the annual meetings, it is safe to presume that their activities should be coordinated for obvious reasons of facilitating meetings' proper organization and work. But there is no indication that the Chair leads the Central Point of Contact or is a part of it from a structural perspective. Simultaneously, there is no indication rejecting such an option. Adequate administrative support is necessary for effective work of any mechanism, and in this case the Code has outlined organs that should suffice to meet the needs of the annual meetings, but the Subscribing States are left with an option to structure these organs as they see fit.

The Central Point of Contact is envisioned as performing secretarial functions for the annual meetings, indicating that neither is it an *ad hoc* entity, nor is it a secretariat of a hosting organization, which are the typical entities performing secretarial functions for an international conference or a treaty meeting. The Central Point of Contact, however, also does not amount to an international organization's secretariat based on the three characteristics of such a secretariat

³¹ *Id*.

as they have been established in Chapter 1. First, the Central Point of Contact tasked with performing secretarial functions is a separate organ created within the analyzed mechanism. Second, it might be concluded that the Central Point of Contact works on a permanent basis: its functions as a communications intermediary and database manager require permanent functioning. Funding, as it has been discussed above, is not a settled issue, but it is plausible to suggest that it would be funded by the State or the entity taking on the role of the Central Point of Contact; but the option of funding allocation from the 'Code of Conduct budget' – should anything like that ever be created – remains a possibility until determined otherwise.

Third, an international character of work or its absence is not established by the Code, but based on the functions bestowed on the Central Point of Contact it is unlikely that it would be acting independently from the will of the Subscribing States. Quite to the contrary, the Central Point of Contact seems to have been provided for the convenience of the Subscribing States, to ensure that all and any information shared by a State is properly transmitted to the recipient, that an electronic database and communications system is maintained for States' benefit and expediency, and that meetings are properly served and organized by a professional secretariat again for the benefit of participating States. The Central Point of Contact is not responsible for external contacts, it does not prepare development strategy, and it does not undertake any steps toward new Subscribing States' solicitation. The consensual voting procedure for most questions is also indicative of the Subscribing States desire to preserve control over matters related to the Code implementation; in such a situation a secretariat possessing even a limited autonomy, and more so capable of performing functions on the international plane distorts the States' complete control.

Overall, while the organ performing secretarial functions is a separate organ working on a permanent basis and possibly funded from the sources allocated for the mechanism financing, it does not possess an international character of work. Recalling the analogy to the linear scale, where an international organization's secretariat is on the one side and an international conference's (or a treaty's) secretariat is on the other, the Central Point of Contact will be closer to the international organization side than to the conference side. This linear scale now looks as follows: an international organization's secretariat, then the CEOS secretariat, then the Code of Conduct Central Point of Contact – then we reach the midpoint, and on the other side is an international conference's secretariat.

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9.2.3 International Legal Personality

Evaluation of the measure of legal personality is a complicated issue with respect to the Code of Conduct. The text of the Code does not cover this question; it has not yet come into force and, thereby, no practice is available to rely on. In such a situation any argument, whether in favor or opposing existence of a legal personality, is bound to be refutable. Nevertheless, this criterion is an important one and should be addressed, even if in an inconclusive way.

Scholars tend to describe the Code of Conduct as a non-institutional mechanism of self-regulation.³² But it has already been established that the Central Point of Contact – a clearly institutionalized entity – works, or better, is envisaged to work on a permanent basis. Moreover, the Code provides for annual, read regular, meetings of the Subscribing States, which also evidence institutionalization. Therefore, the mechanism of cooperation established by the Code of Conduct cannot justly be characterized as a 'non-institutional' one. But it might be agreed that it is indeed a mechanism of self-regulation: a legally non-binding document outlining principles and guidelines of behavior in outer space activities can only be complied with conditional to States' willingness to act accordingly. In this sense the Code is indeed a mechanism of self-regulation, where each State is responsible for its own decisions and cannot be compelled to act in a certain way.

Having agreed that an institutional system is present in this mechanism of cooperation, there is a need to determine whether this mechanism is provided with a legal personality. After the preceding analysis, little doubt is left that this mechanism does not possess a legal personality characteristic for an international organization. While it is an association of States and international organizations with lawful objectives and it possesses at least one organ not subject to the authority of any of the organized communities, no distinction can be made between the legal powers of participating States and the entity. On several occasions it has been pointed out that the Central Point of Contact is created to support activities of the Subscribing States and not to perform functions on the international plane, and that overall mechanism aims at self-regulation, not the regulation with a possibility of control and enforcement – to the extent that is a possibility at all in international public law regulating relations of sovereign subjects.

³² Cf., L.E. Martinez, "The ITU's Evolving Regulatory Role for Space Debris 'Rules of the Road': Implications for Space Communications Regulation," in *Proceedings of the International Institute of Space Law 2013* (2014), at 277.

Two factors acting in concert suggest that the Subscribing States are not willing to give up a shred of their freedom in outer space activities: first, the fact that the Code does not provide for any independently performed powers of the Central Point of Contact evidenced by a rather perfunctory, sketchy outline of the mechanism of cooperation by the Code; and second, the overall thrust and tenor of the Code, as exemplified by the consensus voting procedure and the unanimity requirement for the Code amendment. The history of the Code of Conduct negotiation and drafting, where even after the multilateral consultations completion no steps have been taken to initiate a process of subscription to the Code, speak in favor of such a conclusion. Cautious scholarly assumptions about the value and possible impact of the Code on outer space activities³³ just add ground to the conclusion that States are indeed reluctant to join even this legally non-binding document, which is carefully crafted to preserve the 'self-regulation ambience'. The conclusion should be drawn that this mechanism of cooperation does not possess international legal personality.

9.2.4 Term of Existence

The Code of Conduct mechanism of cooperation has been established to exist and, therefore, to work for an indefinite period of time. The necessarily permanent work of the Central Point of Contact and annual repetition of the Subscribing States meetings are not limited by a certain time limit or achievement of a goal. To the contrary, the Code is viewed as a codification of the modern 'rules of the road' that therefore has to be amended and developed due to advances in space technologies and their applications. Interestingly, previous versions of the Code required only biannual meetings, but in the current version the choice in favor of more frequent meetings was made. Hence, the mechanism of cooperation in accordance with the Code of Conduct has always been seen as requiring regular recurring meetings, and not the occasional *ad hoc* gatherings. Additionally, there is a possibility that was duly noted by the scholars of the Code's provisions transformation into customary norms subject to their widespread support and

³³ For example, *see*, A. Lele, "Space Code of Conduct: Inadequate Mechanism", in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012), at 5-8; W. Rathgeber, N.-L. Remuss and K.-U. Schrogl, "Space Security and the European Code of Conduct for Outer Space Activities," in *Disarmament Forum: A Safer Space Environment?*, 10, 4 (2009), at 38 ("The content of the final Code of Conduct, its forum of negotiation, as well as the mode of adoption all need further clarification.").

compliance.³⁴ Without getting into the discussion about the necessary prerequisites for such a transformation, suffice it to say it would not be possible without continuous and consistent practice, thus underlying a presumably indefinite need for the Code's, and consequently its mechanism's, existence.³⁵

9.2.5 Binding Force of Documents Produced

According to paragraphs 1.3 and 1.4, the Code is not only legally non-binding, but is also "complementary to the international legal framework regulating outer space activities." If the Code itself is non-binding, there is no reason to suggest that documents adopted during the annual meetings could be of any other legal nature, precisely because the annual meetings should be convened to review and develop the Code itself. Hence, only legally non-binding documents can be produced using this mechanism of cooperation.

The Code of Conduct has not yet been adopted and therefore has not yet been put up to practice. Therefore, the analysis has to rely on the text of the Code itself. There is a possibility, however, that once (and if) the Code is adopted and begins to be enforced, including by way of commencing annual meetings and adopting appropriate documents, the nature of such adopted documents might well change. While such documents would most likely continue to be legally non-binding, they might become authoritative and eventually become a basis for identification of customary international law, if they would be widely complied with. At this point, however, these are purely theoretical reflections, and only the practice would prove them right or wrong.

³⁵ For an overview of the elements of the international custom and the process of its identification see, T. Treves, "Customary International Law," in *Max Planck Encyclopedia of Public International Law* (2012); A.A. D'Amato, *The Concept of Custom in International Law* (1971); A.A. Weisburd, *Customary International Law: The Problem of Treaties*, 21 Vand. J. Transat'l L. 1 (1988). In addition to the traditional approach to the identification of international customary norms, requiring identification of both objective and subjective elements, some authors have claimed that only one element might be sufficient. For an overview of the modern approach see, Lepard, Brian D. *Customary International Law: a new theory with practical applications* (2010); M.P. Scharf, *Customary International Law in Times of Fundamental Change* (2013). For an opinion attempting to reconcile the two approaches *see*, A.E. Roberts, *Traditional and Modern Approaches to Customary International Law: A Reconciliation*, 95 A.J.I.L. 757 (2001).

³⁴ Cf., J. L. Banos, "EU Code of Conduct on Activities in Outer Space: Issues that Matter," in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012), at 100.

9.2.6 Existence of Opportunity to Modify Obligations

Neither the consensus voting procedure nor the unanimity requirement for the Code of Conduct modification *per se* constitutes an opportunity for States to modify their obligations. The established consensus voting procedure is supposed to guarantee the continuing significant support for the decisions of the annual meetings, both substantive and procedural. By way of consensus procedure a State cannot opt out of a particular decision, but every Subscribing State is thereby guaranteed to be satisfied by the adopted decision. The unanimity requirement for the modification of the Code, as discussed above, effectively gives any opposing State an opportunity to veto undesirable changes, but it does not provide much of an opportunity to modify its obligations. The unanimity requirement goes back to the Code's origins. As early as 2008, when France took over the European Council Presidency, it made the development of the Code of Conduct a priority and sought to make it acceptable to as many States as possible.³⁶ In the same vein, scholars have pointed out that "while the Draft Code of Conduct is not legally binding, it could become customary law, but it depends on how many states agree to abide by it."³⁷ Hence, a unanimous consent requirement of all Subscribing States is a safeguard requirement for the maintenance of a wide support of participating States, and not a constraint on the right of States to abide by the Code on a voluntary basis as provided by paragraph 1.4 of the Code of Conduct.

9.3 Evaluation and Conclusions

9.3.1 Comparison between CEOS and Code of Conduct Hybrid Mechanisms

The Code of Conduct established a permanently working mechanism of cooperation open to States and international organizations empowered to adopt legally non-binding documents, which has an organ performing secretarial functions not amounting to an international organization's secretariat. Essentially, this mechanism is similar to that of CEOS, namely should be characterized as a hybrid mechanism possessing features of an international organization and international conference. There is, however, a major substantial difference between the two mechanisms: CEOS aims at coordination of individual space programs, and the Code of Conduct

³⁶ *Cf.*, W. Rathgeber, N.-L. Remuss and K.-U. Schrogl, "Space Security and the European Code of Conduct for Outer Space Activities," in *Disarmament Forum: A Safer Space Environment?*, 10, 4 (2009), at 36. ³⁷ *Id.* at 37.

has the goal of 'regulating', albeit in a legally non-binding manner, States' outer space activities. Thereby, while the first one focuses on practical outer space exploitation, the Code of Conduct exists in the realm of 'legal regulation'.

With respect to CEOS it has been noted that scholars are generally favorable to the chosen structure of cooperation due to its ability to accommodate Washington consensusinspired reluctance to adopt legally binding documents and at the same time provide a solid basis for necessary cooperation and coordination. With respect to the Code of Conduct, however, there is no concurrence as to its effectiveness.³⁸ And this divergence in opinions is likely to be caused precisely by the goals pursued by these two hybrid mechanisms of cooperation. Effectiveness of the CEOS hybrid mechanism was seen to lie in the balance between the benefits its participants gain, restraints on their freedom of action, and their willingness to put an effort in cooperation and coordination. The same line of argument, however, cannot be applied to the Code of Conduct mechanism of cooperation.

In the realm of practical space applications, cooperative efforts have tangible results that can be experienced in a short-term perspective. For example, coordination makes valuable data publicly available and it promotes technical compatibility to avoid redundant experiments, thereby minimizing costs and preventing costly changes of ground equipment. Normative regulation, by contrast, cannot bring immediate practical results. On the one hand, it ensures that all parties are behaving within the framework of relevant regulation promoting stability and security of the regulated activities. On the other hand, it restraints parties' freedom of action through subordination of their activities to a mandatory set of rules. But that is only true for a legally binding regulation. In case of a 'soft law' regulation neither the stability of regulated activities can be guaranteed, nor are the parties restrained by a mandatory set of rules. This distinction is essential to understanding why hybrid mechanisms are most effective in coordination of activities in practical applications.

Drawing comparison with CEOS, where amalgamation of an organization-like secretariat and a conference-like absent legal personality was necessitated by the demand to provide a flexible and informal mechanism of coordination beneficial for all participants, the Code of

³⁸ Compare A. Lele, "Space Code of Conduct: Inadequate Mechanism," in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012); and M. Krepon, "Space Code of Conduct: Inadequate Mechanism – A Response," in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012).

Conduct's hybridity is of a different nature. In CEOS all permanent organs, even the Chair, are involved in design of those practical measures that will lead to the CEOS purposes achievement: the Working Groups report directly to the Chair, the Executive Officer is charged with the Strategic Plan development, and the Secretariat coordinates CEOS activities internally and externally. The Central Point of Contact, by contrast, in entrusted only with administrative tasks.

CEOS absent legal personality is mostly the result of the need to utilize a flexible mechanism of cooperation and minimize expenses for such cooperation. The Code of Conduct mechanism of cooperation does not have legal personality, first, because it simply would not need one since the Central Point of Contact does not have any functions exercisable beyond the annual meetings and Subscribing States' communication, and second, because international legal personality equals a certain degree of independence – something the Subscribing States are determined to prevent from happening, predominantly because the issue of peaceful uses of outer space has been brought up in the Code.

Moreover, the Code's focus on 'regulation' as opposed to the CEOS's focus on practical applications, put these two mechanisms in different 'boxes': practical applications and focus on technical issues of cooperation require a different approach and mindset than politico-regulatory activities. The practice-oriented cooperation focuses on such matters as economy, expediency, effectiveness rate, equipment compatibility and the like, which demand primarily technical expertise and adequate application of scientific knowledge to the current circumstances. The politico-regulatory cooperation, by contrast, concerns matters of political feasibility, adequateness to the existing political climate, compatibility with other numerous political and legal regulations, which cannot be evaluated objectively and always demand making a judgment call – an approach substantially different from the 'hard science'. The change of the objective of cooperation might well affect effectiveness of the mechanism of cooperation, even if the mechanism itself proved successful in different circumstances.

9.3.2 Code of Conduct Hybrid Mechanism: Expected Results

While the Code has not been put up for work yet and no practice is thus available, inferences can be made about the anticipated mechanism's effectiveness. The choice of a legally non-binding document *ipso facto* does not predetermine (in)effectiveness of a particular mechanism of cooperation. A lot has been said about the weaknesses or outright inadequacy of the form of code of conduct for regulation of outer space activities, especially of the question of peaceful uses of outer space. While such criticism might be well grounded or, to the contrary, be proved unwarranted by practice, it should not become the focal point of the mechanism's analysis. This criticism pertains to the substantive provisions of the Code, but current analysis focuses on the institutional element of the Code.

Acknowledging that non-compliance with substantive provisions would inevitably lead to uselessness of any mechanism, no matter how effective it is on its own, for the purposes of the present analysis it will be presumed that the substantive provisions of the Code are being implemented to some degree, and that overall States are being supportive.

The goal of the Code is "to enhance the safety, security, and sustainability of all outer space activities pertaining to space objects, as well as the safe environment."³⁹ In furtherance of the substantive provisions, including general principles, a commitment to comply with the existing legal framework and an agreement to introduce and implement measures regarding outer space activities, the Code requires that the Subscribing States (1) notify of outer space activities, (2) exchange information, (3) engage in consultation in case of Code provisions violations, and (4) meet on an annual basis to review and develop the Code, presumably its substantive provisions. To facilitate compliance with these requirements the Central Point of Contact is established. It has been earlier suggested that efficient compliance with the first three requirements is unlikely; but it is plausible that annual meetings might see extensive attendance. Again, in the absence of practice to support or refute these inferences, these presumptions should be accepted as hypotheses based on the limited data currently available.

Hence, only the annual meetings are capable of effectively working toward greater understanding between the Subscribing States, serve as a forum for information exchange and serve as a forum for development and enhancement of the Code's substantive provisions. Collective discussion at most times is a crucial prerequisite for gathering comprehensive information, while consultations and similar methods are capable of supplying sporadic, patchwork-like pieces of data.⁴⁰ And with this perspective a hybrid mechanism created by the Code is justified.

³⁹ International Code of Conduct for Outer Space Activities, para. 1.1.

⁴⁰ See e.g. International Law Commission, *Preliminary Report on the protection of the environment in relation to armed conflicts*, Sixty-sixth session, 5 May-6 June and 7 July-8 August 2014, A/CN.4/674, at 6-8. (The International Law Commission filed a request for information from States about their practice, international and domestic law

First, the annual meetings have to be properly organized. Otherwise, even those States willing to cooperate might be deterred by poor administration, unskillful management of papers and overall nonprofessional atmosphere. Second, the Chair being elected among States' representatives is a long-standing practice for most international gatherings, and the Code of Conduct annual meetings are not an exception. Third, powers and functions of the organ performing secretarial functions – the Central Point of Contact – focus on internal matters. With external communication taken away from the secretarial organ, a figure of a Secretary-General representing the mechanism in relations with other international entities becomes unnecessary. Fourth, information exchanged during the meetings should be properly recorded; decisions arrived at should be formalized, and progress in their implementation should be duly tracked and passed out to all Subscribing States. Fifth, communications beyond annual meetings, which inevitably would take place even if merely in regard of procedural matters, should be properly transmitted and recorded. In the absence of such an intermediary the possibility of complying with the requirements regarding notifications, information exchange and consultations vanish.

A permanently working organ with secretarial functions, thus, is a necessity in achievement of the ambitious goals of the Code. The Central Point of Contact, however, has not been created as an entity capable of influencing or catalyzing achievement of these goals. There is a good reason for this, though. The Code of Conduct is supposed to regulate outer space activities; the non-binding form has been chosen intentionally to accommodate States' reluctance to sign for any obligations,⁴¹ and the whole scheme of cooperation is concentrated on guaranteeing that every State feels confident that nothing contrary to its will is 'slipped into' the Code. In such an almost paranoid atmosphere of distrust and rejection of anything that has not

interpretations pertaining to the theme of the Report, and only 5 States have responded to the request within a year, while 3 out of these responses were very concise and did not provide all requested information. The Special Rapporteur expressed hope that other States will provide further information to the questions posed by the Commission.); M. Benkö and K.-U. Schrogl (eds.), *International Space Law in the Making: Current Issues in the UN Committee on the Peaceful Uses of Outer Space* (1993), at 199. (In 1988 and 1989 two notes verbales from the UN Secretary General asked the States to provide information about their national legal frameworks relating to the development of the application of the principle contained in Art. 1 of the Outer Space Treaty. 30 countries, out of more than 170 Member States of the UN and 53 Member States of COPUOS responded to these two notes verbales. While the response rate was sufficient, it does not come close to even a majority of nations, whose responses were requested.)

⁴¹ For an argument about unlikelihood of the majority of spacefaring nations agreeing to a fundamental outer space treaty, *see* F.G. von der Dunk, "International Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 43.

been scrutinized by a State itself, a secretariat possessing even a limited autonomy and entrusted with substantive, as opposed to administrative functions would have been unthinkable.

By extension, it is equally logical that no new subject of international law has been created. The formality of the Code mentioned above coupled with the need to ensure that any and all changes to the Code are properly agreed upon by the States led to the need of establishing a permanently working organ with secretarial functions, at the same time rejecting the possibility of such an organization's independence and any measure of legal personality of the entity.

Getting back to the Code's goal, it can now be understood that the hybrid mechanism of cooperation has not been triggered by it. There are multiple options to achieve the proclaimed goals: an agreement providing for regular review meetings, a mechanism with a secretariat-like organ tasked with continuing monitoring of its participants activities, or a practice-oriented mechanism akin to CEOS aimed at coordination of space debris mitigation practices. The current option seems to have been chosen because the Code is not only about 'safety, security and sustainability' measures, but it also covers the principles pertaining to peaceful uses of outer space. This issue has always been controversial for outer space regulation,⁴² it is being discussed within the United Nations Conference on Disarmament, and has been a part of the Code since its inception. Although multiple redrafts have watered-down relevant provisions, which can now be found only in the General Principles Section, the approach has been preserved: if the issue of peaceful uses of outer space is touched upon, no intermediaries are allowed.⁴³

The hybrid mechanism exemplified by the Code of Conduct is not a result of the need to combine flexibility with a continuous character of work. It is a product of the need to regulate complex controversial matters, which in turn require a high level of formality and legal precision, and the unwillingness to accept any legally binding obligations. The mechanism itself, while not substantially different from CEOS, has not been altered in a specific way, which made

⁴² F. Tronchetti, "Legal Aspects of the Military Uses of Outer Space," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 331-32 ("The controversy over military uses of outer space has been largely related to four factors: (1) the use of outer space for military reasons is a highly sensitive issue and states are often reluctant to accept legal restrictions or prohibitions to such a use; (2) a unitary legal framework governing military operations in space is missing – instead, the applicable rules are distributed among various sources of law, including general public international law, international humanitarian law and international space law; (3) these rules fail, at times, to provide a clear understanding of key terms and concepts; and (4) space technologies (especially as for launch vehicles) and space objects (notably satellites) are usually of a dual-use character, as they have the potential to be used for civil and military applications.").

⁴³ It was suggested that "Arms are not only a symptom of mistrust, they may also be a cause of it." S.D. Bailey and S. Daws, *The United Nations: A Concise Political Guide* (1995), at 79.

it less effective in achievement of the proclaimed goals. The bottom line is the goals are too grand for a hybrid mechanism.

Despite the outlined drawbacks on the institutional side of the established cooperation, or as of now just proposed cooperation, nowadays it seems that a majority of authors agree that the success of the Code depends mostly on the number of States supporting the Code, and here the Code might face significant difficulties.⁴⁴ A panel of experts' symposium entitled "International Code of Conduct for Outer Space Activities – The International Perspective" specifically mentioned that "for the Code to succeed, as many countries should participate as possible via a flexible forum, one that includes civil and military aspects of using outer space, and there should be clear implementation mechanisms."⁴⁵ Currently, neither broad support nor clear implementation mechanisms have been secured.

Nevertheless, it is likely that further regulation of outer space activities will continue to utilize hybrid mechanisms of cooperation. States are not willing to take on any more obligations than they already have; simultaneously, the contemporary issues of outer space exploration and use, including the one emphasized by the Code of Conduct – space debris, demand coordination on some level, and hybrid, read flexible, mechanisms of cooperation are one possible solution. In the previous chapter it has been suggested that usage of the hybrid mechanisms of cooperation was necessitated by the growing exploitation of outer space and the need to use its resources in an efficient and sustainable way.⁴⁶ The same motivation is true for the case of the Code of Conduct.

Space debris is obviously a pressing issue.⁴⁷ The Space Debris Mitigation Guidelines were drafted in 2007. But even complete abidance by the Guidelines' provisions for every future launch would not solve the problem because the debris that is already there would not disappear. Additionally, space technology is in constant development, and there is a chance that ten years from now these Guidelines become outdated and ineffective.⁴⁸ These two considerations point

⁴⁴ See, M. Krepon, "Origins of and Rationale for a Space Code of Conduct," in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012), at 34.

⁴⁵ Secure World Foundation, *Experts Confer on "Rules of the Road" for Outer Space Activities* (2012), http://newswise.com/articles/view/586738/.

⁴⁶ Cf., M. Hofmann, "Sustainability of Space Environment: Draft UNGA Resolution," in *Proceedings of the International Institute of Space Law* (2012), at 639-40.

 ⁴⁷ For a general overview see, N. Jasentuliyana, *International Law and the United Nations* (1999), 321-49.
 ⁴⁸ Cf., H.R. Hertzfeld, "A Roadmap for a Sustainable Space Law Regime," in *Proceedings of the International Institute of Space Law* (2012), at 299.

toward a dynamic mechanism of cooperation, receptive to the latest developments and able to promote best practices. The hybrid mechanism ensuring flexibility and adaptability, but capable of constant monitoring of the recent trends, their analyses and introduction to all interested States and international organizations would prove helpful. The more subjects engage in outer space exploitation, the more pressing the issue would become.

The Code of Conduct was largely stimulated by the troubling display of non-transparency and insensitivity to the space environment shown by China in its 2007 anti-satellite test.⁴⁹ Certainly, by way of introducing the Code of Conduct – a 'soft law' document – the European Union supported the notion that voluntary rules of the road, founded in 'best practices' among space actors, offered the most promising approach to achieving space behavioral norms. "The EU emphasized that the Code of Conduct represents a pragmatic and incremental process which can assist in achieving enhanced safety and security in space. The Code has a preventive focus, emphasizing that activities undertaken in space should involve a high degree of care, due diligence, and transparency with the aim of building confidence and trust among space actors."⁵⁰

The goals of the Code as stated in paragraph 1.1 of its text, the reasoning behind initiating the Code of Conduct development, and the rationale for choosing the legally non-binding instrument support the earlier suggested conclusion that a hybrid mechanism of cooperation created by way of a legally non-binding document is a contemporary trend in outer space regulation. On the one hand, the more intensive outer space exploitation requires greater coordination and transparency of such activities, and on the other, it necessitates that measures are taken to attain sustainability, ensuring that outer space is preserved for future space endeavors. Viewed from a different, legally-political perspective, 'soft law' regulation has become a trend since the 1980s, and the last decade has only strengthened the tendency. Consequently, there is nothing surprising in utilization of a legally non-binding document, but there is a novelty here, namely the establishment of the hybrid mechanism of cooperation to support formal, to the extent they can be characterized as such given their non-binding nature, relations and measures promoted by the Code of Conduct.

 ⁴⁹ See, J. Robinson, "Europe's Space Diplomacy Initiative: The International Code of Conduct," in A. Lele (ed.), *Decoding the International Code of Conduct for Outer Space Activities* (2012), at 27.
 ⁵⁰ Id. at 28.

Chapter 10. COSPAS-SARSAT Programme

10.1 Overview

"Achieving sustainability is one of the great policy objectives of our time. It is a global concept and it comprises a huge set of policy areas."¹ Although the term 'sustainability' is usually used to refer to environment protection studies, in reality it is much broader. "Its main idea is to maintain the longevity of the global ecosystem safeguarding humanity's further development or even survival,"² and in this sense concerns a wide array of issues from environment and energy to mobility and security.³ Safety of life is the nucleus of the sustainability studies. Therefore, application of the latest technology in rescue operations is an indispensable part of the sustainability discussion.

Although it is true that space technology has acquired an important place in the sustainability and safety apparatus just recently, as early as 1979 the international COSPAS-SARSAT Programme was founded to provide help to persons in distress, particularly to maritime and aviation users. In the present chapter this Programme will be reviewed and analyzed. In scholarly works there is no unity with regard to proper designation of the Programme: some argue that it is an international organization, others are not so categorical in their evaluations. Hence, the analysis based on the six criteria will allow classifying COSPAS-SARSAT in a decisive way, leading to a conclusion about the form of cooperation that was deemed appropriate to fulfill the Programme's humanitarian objectives.

In 1982 the rescue of two men stranded in a remote area of British Columbia, Canada made the headlines. Communication received by the Ottawa ground station from the Soviet COSPAS I sputnik, which detected the emergency aircraft's beacon – a cooperative endeavor that was the prototype of the modern COSPAS-SARSAT Programme – allowed determining the crash site and rescuing the passengers of the crashed plane.⁴ The satellite system was initially

¹ K.-U. Schrogl, C. Mathieu and A. Lukaszczyk, "Space and Sustainability," in K.-U. Schrogl et al. (eds.), *Threats, Risks and Sustainability – Answers by Space* (2009), at 3.

 $^{^{2}}$ *Id*. at 4.

³ See, The European Space Policy Institute's conference "Threats, Risks and Sustainability – Answers by Space," 10-11 December 2007, Vienna, Austria.

⁴ Cf., National Aeronautics and Space Administration, COSPAS/SARSAT (1986), at 3.

created based on the Memorandum of Understanding of 1979 between the agencies of the Soviet Union, United States, Canada and France. This Memorandum united the Western program SARSAT and the Soviet maritime navigation satellite system abbreviated COSPAS "calling for interoperability between the two systems, thus allowing participants in both programs to use both space segments to detect and locate distress beacons."⁵ Upon successful completion of the evaluation phase in 1982, the next Memorandum of Understanding of 1984 among the same parties followed. The system was declared fully operational in 1985.

"Since several other countries had also participated in the experiment and used the system to save lives, finding a way to transform it into an operational system was highly desirable."⁶ On July 1, 1988 the four States providing the space segment of the Programme signed the International COSPAS-SARSAT Programme Agreement,⁷ which ensured the continuity of the System and its availability to all States on a non-discriminatory basis. That was the *de jure* beginning of the successful story of cooperation that by 2014 saved over thirty-seven thousand lives.⁸ Technologically, the COSPAS-SARSAT system can be described as follows: "A constellation of satellites is circling the globe monitoring for distress signals, while tracking stations on six continents receive the satellite signals, compute the location of the emergency, and quickly forward the distress alert information to the appropriate rescue authorities."⁹

An independent Programme, however, was not the first and only choice for the cooperating States; operation by an existing international organization was another option. The International Maritime Satellite Organization (INMARSAT) had the right institutional structure.¹⁰ "Search and rescue was compatible with the Inmarsat's mission, and the organization had in fact studied the possibility of adding a search and rescue capability to future generations of its geostationary satellites."¹¹

⁵ R.J.H. Barnes and J. Clapp, *Cospas-Sarsat: A Quiet Success Story*, 11 Space Policy 261 (1995), at 262.

⁶ J.V. King, *Overview of the Cospas-Sarsat Satellite System for Search and Rescue*, Online J. of Space Comm. 4 (2003), at 6.

⁷ International COSPAS-SARSAT Programme Agreement, July 1, 1988. 1518 U.N.T.S. 209.

⁸ COSPAS-SARSAT System Data, No. 40, 15 December 2014, available at www.cospas-sarsat.int.

⁹ J.V. King, "Cospas-Sarsat Satellite System for Search and Rescue," in P. Olla (ed.), *Commerce in Space: Infrastructures, Technologies, and Applications* (2008), at 69.

¹⁰ O. Lundberg, "Mobile Communications via satellite in the 1990s," in *Philosophical Transactions of the Royal Society of London. Series A, Mathematical and Physical Sciences*, Vol. 312, No. 1519, Technology in the 1990s: The Industrialization of Space (Jul. 26, 1984), at 51.

¹¹ R.J.H. Barnes and J. Clapp, Cospas-Sarsat: A Quiet Success Story, 11 Space Policy 261 (1995), at 265.

By 1983 the Council of INMARSAT was fully engaged in examination of possible ways to fund provision of satellite-based rescue services.¹² The Soviet Union, playing a significant role in INMARSAT, strongly favored the option of handing administrative functions to the organization, suggesting that it was well equipped to undertake the task, while the Western partners needed assurances that all participating States possessed a similar level of control over the Programme and therefore were wary of accepting the institutional solution where the Soviet Union had an upper hand. At the same time, all countries, and particularly the United States in the light of the Reagan era budget cuts, were looking for an option to maintain the rescue service without committing to higher expenditures. In the end, a compromise was struck by way of preserving the Programme's independence but establishing a small secretariat at the INMARSAT Headquarters in London in 1987.¹³

Somewhere at this point begins the confusion about the legal nature of the COSPAS-SARSAT Programme. The COSPAS-SARSAT Programme International Agreement and relevant international practice will be analyzed in order to identify the category of cooperation the Programme belongs to. Simultaneously, the analysis will allow identifying institutional specifics of this mechanism of cooperation, which will be further used in the course of the 'purpose-result' analysis.

Article 2 establishes purposes of the 1988 Agreement: assurance of the long-term operation of the system of search and rescue, provision of distress alert and location data, support of the International Maritime Organization and the International Civil Aviation Organization objectives in search and rescue, and coordination of the management of the system. The COSPAS-SARSAT system, in accordance with Article 1 of the Agreement, is comprised of a space segment, a ground segment and radiobeacons.

The way the objectives of the Agreement are formulated is noteworthy. The exact wording focuses on the operation of the system, namely three types of equipment, not the Programme itself. Should the Agreement have been focused on the establishment of a separate entity, one might expect that the objectives would concern activities of the entity, but it rather sets the goals of proper functioning of the necessary equipment. Acquiescing that a practice-

¹² *Cf.*, G.P. Zhukov, "Search and Rescue Satellite Aided System (COSPAS-SARSAT System)," in International Institute of Space Law of International Astronautical Federation, *Proceedings of the Twenty-Sixth Colloquium on the Law of Outer Space* (1983), at 267-69.

¹³ W.-H. Park, Satellite Application for Aviation Requirements, 14 Air L. 17 (1989), at 27.

oriented cooperation is impossible in the absence of properly functioning equipment, the emphasis on the technical component suggests that the institutional side of cooperation is somewhat secondary. Notably, Article 1 defines the term 'Programme' as "activities carried out by the Parties to provide, operate and coordinate the COSPAS-SARSAT system." Therefore, the COSPAS-SARSAT Programme – the official name of this mechanism of cooperation – can be translated using the Agreement's glossary as 'the COSPAS-SARSAT activities carried out by the Parties to provide, operate and coordinate a space segment, a ground segment and radiobeacons'. In this sense, the Programme can hardly be equated to an international intergovernmental organization. Further analysis is necessary, however, to draw a persuasive conclusion in this regard.

To facilitate functioning of the COSPAS-SARSAT system, the 1988 Agreement established two permanent organs: the Council and the Secretariat. The exact wording of the Agreement suggests that the organs are created for implementation of the Agreement, which in turn, as it has been noted earlier, was adopted for performance of the activities carried out by the Parties to provide, operate and coordinate the COSPAS-SARSAT system. In other words, the organs were created to facilitate operation of the technical equipment, not *per se* coordination of actions of the Parties. This suggests that functions of the organs have technical focus, albeit administrative tasks are also necessarily a part of their mandate.

In accordance with Article 8, the Council is composed of one representative of each Party – that is four representatives altogether, which may be accompanied by deputies and advisers. The Council is a permanent organ: though the precise frequency of the Council meetings is not established, it is mandated that the Council meet at least once a year. The Agreement sets up the most important of the rules of the procedure – the voting rules, requiring that decisions be made unanimously, leaving other procedural rules to be drafted at the Council's discretion.

From the inception, the Programme's financial arrangements have been premised on the principle of independency. "From the very beginning an important feature of this cooperation was that no funds passed among the national participants; each party paid for its own hardware and services."¹⁴ The same system was preserved after the formal institutionalization of the system. Article 6 of the 1988 Agreement states: "Each Party, in conformity with its domestic funding procedures, and subject to the availability of appropriated funds, shall be fully

¹⁴ R.J.H. Barnes and J. Clapp, Cospas-Sarsat: A Quiet Success Story, 11 Space Policy 261 (1995), at 263.

responsible for financing costs associated with its contribution to the Space Segment ... and the common costs arising from the obligations of this Agreement." This provision effectively means that no common Programme's budget exists apart from the allowance necessary for financing of the Programme's organs, which by all means is not the greatest item of expenditure in a system involved in space-related activities.

The autonomous principle of funding of each Party's activities seems to be a logical extension of the overall thrust of the Programme, where all decisions are to be made unanimously. Russian scholars, however, have claimed that the utilized financing system threatens the Programme's stability and uninterrupted functioning. COSPAS-SARSAT is performing important humanitarian functions, the argument goes, hence its continuous work should be preserved using all available means, and advance financial planning and funding is crucial. Therefore, it has been suggested that a uniform budget that is filled up on a mandatory basis should be created, and liability provisions for failure to comply with monetary obligations should be drawn and enforced.¹⁵

There are at least two counter-arguments to the outlined proposal. First, an example of the United Nations Educational, Scientific and Cultural Organization (UNESCO) where insufficient funding caused by the United States' refusal to pay its contribution showed that even thorough budgeting is not a panacea from organizations' financial crises. The United States, along with Israel, has lost its vote in the Organization after missing the deadline to repay its debt.¹⁶ While the liability mechanism is in place and has been enforced against the non-paying States, the results have been more devastating for the Organization than for the United States or Israel. The US share in UNESCO contributions amounts to twenty-two percent of the Organization's budget, and missing eighty million US dollars a year put UNESCO on the brink of financial crisis and prompted to impose drastic financial cuts.¹⁷ Thereby, an extensive financial planning and budgeting, as it is the case with UNESCO, coupled with enforceable

¹⁵ See, Ганюшкина Е.Б., Правовая природа международной программы КОСПАС-САРСАТ [Legal Nature of the International Programme COSPAS-SARSAT] // Ежегодник морского права 2008. Юбилейное издание к 40-летию Ассоциации международного морского права. – М., 2009. С. 117.

¹⁶ See, US loses UNESCO Voting Rights after Stopping Funds over Palestine Decision, The Guardian, 8 November 2013, available at http://www.theguardian.com/world/2013/nov/08/us-unesco-voting-funds-palestine-decision.

¹⁷ United Nations Educational, Scientific and Cultural Organization, Facts and Figures: UNSECO's Response to the Financial Crisis (2013), available at

 $http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/BPI/EPA/images/media_services/Director-General/response-financial-crisis.pdf.$

liability provisions for non-fulfillment of financial obligations is not capable of completely halting a problem of insufficient funding, nor it is capable of ensuring an uninterrupted functioning of an entity.

Second, creation of a unified COSPAS-SARSAT treasury does not fit within the Programme's structure as established by the 1988 Agreement. In accordance with Article 5, each Party contributes space segment units and remains fully responsible for their operation and maintenance, whereas the Council is only responsible for development and adoption of technical standards that are to be followed in appropriate equipment management. So the Parties do not transfer to the Programme either full ownership of the equipment, or even operation and maintenance rights. And if the Programme does not manage the equipment, there is no need for a funding of operational activities – since they are performed separately by the States and not within the COSPAS-SARSAT framework. Thus, creation of a uniform budget for administration and operation of space segment equipment is only justified if the whole system of management is changed by way of transferring space segment units to the Programme and leaving the Parties responsible only for financing, not operation. It is suggested that such transformation is highly unlikely, and so alteration of the financing system is also unlikely and unnecessary.

The Programme, nevertheless, possesses separate capital used to cover administrative costs of operations, primarily funding of the Council and Secretariat. These expenses are borne by all Programme participants, including Parties, space and ground segment providers and users, in equal shares that are being revised from time to time by the Council in accordance with Articles 6 and 9 of the 1988 Agreement. In accordance with the COSPAS-SARSAT Guidelines for Participation, all associated States pay a flat fee of forty-two thousand Canadian Dollars as their contribution to the common costs of the Programme.¹⁸

10.2 Six-Criteria Analysis

10.2.1 Membership/Participation

The COSPAS-SARSAT Programme mechanism of cooperation provides for several levels of participation. The first and, in practice, closed level of participation consists of Parties

¹⁸ Guidelines for Participating in the COSPAS-SARSAT System, C/S P.007 (E), October 2009, Issue 5, available at www.cospas-sarsat.int.

to the 1988 Agreement, namely Canada, France, Russia and the United States. Formally, however, in accordance with Article 16 any State "that agrees to contribute a minimum of one basic unit of the Space Segment, and is prepared to assume the responsibilities of a Party pursuant to this Agreement" can become a Party. An Understanding between the States Parties to the International COSPAS-SARSAT Programme Agreement and the Republic of India concluded in 2007 effectively requires India to provide space segment equipment – a search and rescue geostationary satellite,¹⁹ but that has not led to India becoming a Party to the Agreement. In accordance with the official COSPAS-SARSAT List of States and Organizations associated with or contributing to the Programme, India is designated to Group II – Ground Segment Providers, and to Group V – Contributors to the Space Segment through Special Arrangement. It is noteworthy, that Group V has only two other providers: the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) and the European Commission on behalf of the European Union.

So notwithstanding the existing provision about the accession to the 1988 Agreement, India has not acquired a status of a Party to the Agreement despite the fact that it provides space segment. It has acquired a 'transitory' status that has been granted only to two other entities – international organizations, which by way of Article 16 provisions are excluded from accession to the Agreement altogether. It is a perplexing outcome that can be explained in one of two ways: either India rejected to assume the responsibilities of a Party, or the initial Parties to the Agreement rejected to accept another State into 'the club'. The former is quite unlikely in the light of responsibilities assumed by India in accordance with the 2007 Understanding, which include, among others, operation of the provided geostationary satellite in accordance with the procedures agreed with the Programme's Council, timely distribution of alert data through Indian Control Center, complete financing of all costs associated with India's contribution and participation in common costs associated with the Programme. At the same time, representatives of India are allowed to attend only open (often annual) meetings of the Council and are excluded from the Parties-only regular meetings of the Council.

Moreover, to accommodate India's specific status, the 2007 Understanding introduced the fourth element in the COSPAS-SARSAT system – 'the geostationary Earth-orbiting satellites

¹⁹ Understanding between the States Parties to the International COSPAS-SARSAT Programme Agreement and the Republic of India Concerning the Association of the Republic of India with the COSPAS-SARSAT Programme as a Provider of Geostationary Satellite Services for Search and Rescue (GEOSAR), signed on 23 February 2007.

of the GEOSAR Space Segment' – without introduction of respective changes in the 1988 Agreement. In accordance with the 1988 Agreement, then, India should be expected to have acquired the status of a Party, but in fact it is treated as an 'associate pursuant to special arrangement' in spite of the absence in the 1988 Agreement provisions of establishment of such a status. Apparently, the Roman dogma *lex specialis derogat lex generalis* was deemed sufficient to resolve this legal ambiguity, meaning that the 2007 Understanding having been concluded at a later date supersedes (amends) provisions of the 1988 Agreement.

Participation in the status of a ground segment provider and of a user, in accordance with Articles 11 and 12, is also formally permitted solely to States, but in practice two other types of entities have the status of a ground segment provider, and two more have the status of a space segment provider pursuant to special arrangement. While the latter two, EUMETSAT and the European Union represented by the European Commission are indeed international organizations – which of course does not change the fact that, strictly speaking, only States are allowed to participate in the Programme – whereas the former two have an unclear international legal status. One is the Hong Kong Marine Department, and the other is the International Telecommunication Development Company of Chinese Taipei. Different States depending on their foreign policy considerations treat the territorial entities, to which these two organizations belong, differently from an international legal perspective. But it would be a sound exaggeration to designate these entities international organizations; and such a designation for the purposes of the COSPAS-SARSAT Programme should be considered a diplomatic move aimed at curtailing possible controversies about their statuses.

The 1988 Agreement, at the same time, is not silent about the Programme's relations with international organizations. Article 13 provides that to promote implementation of the Agreement, the Parties shall cooperate with international organizations on matters of common interest, and that such cooperation may be formalized between these organizations and the Parties. In principle, the wording is broad enough to encompass almost anything, but reading of the Agreement as a whole makes a clear distinction between the possible methods of cooperation with States, and those with international organizations. One cannot fail to assume that a separate article covering relations with international organizations was introduced for a reason, namely to reserve participation only to States, but at the same time to leave room for cooperation with international organizations. Recalling that the Soviet Union had always been a vocal opponent of

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providing international organizations with the international status similar to that of States, such a conclusion seems all the more justified. The practice, however, went a different way, and the broad and ambiguous wording of Article 13 turned out to be convenient.

The association agreement with EUMETSAT is a useful example to explore the COSPAS-SARSAT practice of relations with international organizations. The Arrangement on Cooperation between the Cooperating Agencies of the Parties to the International COSPAS-SARSAT Programme Agreement and the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) on the EUMETSAT Contribution to the COSPAS-SARSAT GEOSAT System was signed on October 25, 2010.²⁰ As it is clear from the title of the document, this arrangement was concluded by the Parties to the 1988 Agreement, just as provided in Article 13, and is aimed at cooperative utilization of geostationary satellites operated by EUMETSAT for the purposes and benefits of the Programme by way of their integration. Article 3 stipulates that the Arrangement "is not binding under international law and does not require the exchange of resources or technology among the Signatories."

It should be recalled that EUMETSAT and India are both designated to the same category of participants of the Programme, namely Contributors to the Space Segment through Special Arrangement. The Understanding with India, however, does not have the 'legally non-binding clause' and provides for specific rights and obligations of the parties, hence falls within the category of legally binding intergovernmental international treaties. By and large, these two agreements furnish similar sets of obligations, both aim at enhancement of COSPAR-SARSAT capacities through addition of geostationary space segments, and are concluded on behalf of the Parties to the 1988 Agreement, while they obviously differ in their international legal nature, whereas one is binding and the other one is not. This essential difference can, therefore, be only explained by and attributed to the type of the counter-party: within the COSPAS-SARSAT framework only an agreement with a State can be set forth in the form of a legally binding treaty.²¹

²⁰ The Arrangement on Cooperation between the Cooperating Agencies of the Parties to the International COSPAS-SARSAT Programme Agreement and the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) on the EUMETSAT Contribution to the COSPAS-SARSAT GEOSAT System of October 25, 2010, available at the COSPAS-SARSAT Programme official website www.cospas-sarsat.int.

²¹ The Declaration of Intent for Co-operation on the Development and Evaluation of the Medium Earth Orbit Search and Rescue (MEOSAR) Satellite System between the Co-operating Agencies of the International COSPAS-SARSAT Programme and the Galileo Joint Undertaking concluded in December 2006 and reassigned to the European GNSS Supervisory Authority represented by the European Commission in 2007 does not have the 'legally

Overall, provisions of Article 13 of the 1988 Agreement have been used to cooperate with international organizations in providing space segment units, but due to the abovementioned legal differentiation of the statuses of States and international organizations, cooperation with the latter is being framed in a 'soft law' manner. The conclusion can be drawn that participation in the COSPAS-SARSAT Programme is only legally conceivable for States, and collaboration with international organizations is framed in an informal legally non-binding way.

10.2.2 Secretariat

The Programme has two permanent organs, as has been noted above: the Council and the Secretariat. Their functions are extremely intermingled, where functioning of the Secretariat is fully guided by the Council's instructions.

The Council has the broad functions of a plenary organ, including, among others, oversight of the implementation of the Agreement, development of necessary plans for the implementation of the Agreement, agreement on the common costs of the Programme to be borne by the Parties and other participants, preparation and adaptation of technical standards, and communication with the International Civil Aviation Organization, the International Telecommunication Union, the International Maritime Organization and other international organizations.

The Secretariat is a permanent administrative organ headed by the Head of Secretariat performing functions as directed by the Council. Basically, the Secretariat is charged solely with administrative clerical-like functions: provision of conference services, correspondence services, documental support, liaison between Programme's participants and other similar functions as required by the Council.²² As it has been noted above, initially the COSPAS-SARSAT Secretariat was located at the INMARSAT Headquarters in London and had only five employees. In 2005, the Programme's Headquarters were transferred to Montreal in accordance with the Arrangement between Canada, the Republic of France, the Russian Federation and the

non-binding clause', but the designation of the document along with the nature of the contained provisions also suggest the legally non-binding nature of the document.

²² Para. 3 of Article 10 of the 1988 International COSPAS-SARSAT Agreement states: "The Secretariat shall take direction from the Council in the performance of its functions, which include: (a) conference services for the meetings of the Council and of its subsidiary organs; (b) administrative services concerning general correspondence, system documentation and promotional materials; (c) technical services including the preparation of reports as instructed by the Council; (d) liaison with Ground Segment Providers, User States and international organizations; and (e) such other services as may be required by the Council for the implementation of this Agreement."

United States of America Regarding the Headquarters of the International COSPAS-SARSAT Programme (Headquarters Arrangement).

At the outset, Article 1 of the Headquarters Arrangement establishes a completely new understanding of the COSPAS-SARSAT Programme. For the purposes of this Arrangement it is designated an "organization" and is defined as "comprising the Council and the Secretariat," by comparison to the first article of the 1988 Agreement, which defines the Programme as "activities carried out by the Parties to provide, operate and coordinate the COSPAS-SARSAT system." Undoubtedly, 'activities' and 'organization' are fundamentally different terms, and fundamentally different characterizations, which one would hardly apply to the same phenomenon, at least in the international legal sense.

The second part of the Headquarters Arrangement is entitled "Status of Organization" and opens with an Article, which reads: "The Organization will have the legal capacities of a body corporate under Canadian domestic law, without prejudice to privileges and immunities provided in this Arrangement, and the Head of Secretariat will be its legal representative with respect to the functions described in the Programme Agreement." The meaning of this provision in the international legal sense, however, should not be exaggerated. It should be read in conjunction with Articles 25 and 26 of the Headquarters Arrangement that stipulate the legally non-binding nature of the document, and affirm that privileges and immunities granted pursuant to this document are granted only by the Government of Canada, not the governments of other three State-Parties to the 1988 Agreement. Taken together, these articles suggest that the designation of the Programme as the 'organization' was literally made only for the purposes of this document.

Moreover, the Headquarters Arrangement, being a 'soft law' document, is incapable of altering the legal nature of the object of the document; hence, by way of the provisions of this document the COSPAS-SARSAT Programme cannot and was not transformed into an organization. The agreement deals with a specific issue – establishment of the Headquarters on the sovereign territory of the State; it provides for privileges and immunities of the Programme as represented by the Council and the Secretariat on the territory of Canada, it provides for privileges and immunities of the Programme's organs, and representatives of States and experts attending meetings and

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conferences commenced in connection with the Programme, but again only on the territory of the sovereign State.

Overall, the Headquarters Arrangement has a noteworthy legal composition. On the one hand, it is an international agreement concluded by four sovereign States regarding the matter that is normally addressed on the international level. On the other, the Headquarters Arrangement unequivocally stipulates that the agreement shall not be considered binding on the international plane. Thus, the Headquarters Arrangement suggests that it has binding force solely on the national plane, or more precisely, within the territory of Canada;²³ the substantive provisions of the Headquarters Arrangement confirm their strictly national applicability. The net result is that four sovereign States by way of an internationally legally non-binding agreement created rights and obligations enforceable on the territory of one of the contracting States; in effect, the Headquarters Arrangement attempts to substitute national Canadian legislature in this regard. While the internal procedures have been properly complied with, as it will be discussed below, to ensure that rights and obligations enforceable on the territory of Canada have proper legal source, the overall approach to establishing the Programme's headquarters and providing functional privileges and immunities strikes as unconventional, to say the least, and as legally convoluted and somewhat confusing. Quite likely, this approach was chosen for political reasons, leaving plenty of room for adjustment or straightforward withdrawal.

In furtherance of the Headquarters Arrangement, the International Cospas-Sarsat Programme Privileges and Immunities Order has been appended to the Canadian Foreign Missions and International Organizations Act.²⁴ In this national law COSPAS-SARSAT is defined as an 'international organization', but given the municipal nature of the act and its legal force solely on the sovereign territory of Canada, the named designation does not bear international legal significance. Due to the federative structure of Canada, it was deemed necessary to conclude an additional, regional agreement with the hosting province of Canada. On May 17, 2005 the Understanding between the COSPAS-SARSAT Programme and the

²³ Article 25 of the Agreement expressly states that it is legally non-binding on the international plane. Therefore, other parties to COPSAS-SARSAT cannot enforce Canada's legally non-binding promise to provide headquarters using international legal methods. That, however, does not undermine the fact that legally non-binding agreement should be complied with in good faith.

²⁴ International Cospas-Sarsat Programme Privileges and Immunities Order (SOR/2005-112), annexed to the Foreign Mission and International Organizations Act, S.C. 1991, c. 41.

Gouvernement Du Québec was concluded.²⁵ The Preamble pronounces that the Understanding is concluded because "the Gouvernement du Québec wishes to enable the COSPAS-SARSAT Programme to adequately carry out its mandate and to facilitate its performance." In general, the document repeats privileges and immunities granted pursuant to the Headquarters Arrangement, and only specifies the exemptions in accordance with the laws of Québec. Overall, the Headquarters Arrangement, even as strengthened and elaborated by the two national Canadian laws, does not provide privileges and immunities on the international plane, but only on the national plane as detailed in the two municipal laws.

An international organization's secretariat has to possess three characteristics defined in Chapter 1. The COSPAS-SARSAT Secretariat is undoubtedly a separate organ within the Programme's structure as per Article 7 of the 1988 Agreement. Article 10 unequivocally states that the Secretariat works on a permanent basis; and Article 6 as detailed in the Guidelines for Participation²⁶ confirms that functioning of the Secretariat is funded from the Programme participants' contributions to the common costs of the system. While none of the COSPAS-SARSAT underlying documents uses the term 'budget', creation of an allowance funded by participating States' flat-fee contributions to finance the functioning of the Council and the Secretariat and Programme's meetings can hardly be treated as anything different than the entity's budget. That puts the COSPAS-SARSAT Secretariat in compliance with the first two characteristics of an international organization's secretariat.

The third characteristic, however, is barely met by the COSPAS-SARSAT Secretariat. There are two arguments in favor of such a conclusion. First, Article 10 of the 1988 Agreement explicitly states that the Secretariat "shall assist the Council in the implementation of its functions." Since the Council is the plenary organ comprised of representatives of the Parties to the Agreement, where the decisions are adopted by a unanimous vote, any decision of the Council is effectively a decision, maybe a compromise, of all four State-Parties. Unlike plenary organs in most international organizations, where, as a general rule, decisions are adopted by a majority vote, the Council uses the principle of unanimity for all decisions, thereby making it impossible to claim that the document, in fact, was adopted by the organ, which is different from

²⁵ Understanding between the COSPAS-SARSAT Programme and the Government Du Québec Concerning Exemptions, Fiscal Advantages and Courtesies Accorded to the Programme, Representatives of Member States and Officials of the Secretariat, C/S P.006 (2005), available at www.cospas-sarsat.int.

²⁶ Guidelines for Participating in the COSPAS-SARSAT System, C/S P.007 (E), October 2009, Issue 5, available at www.cospas-sarsat.int.

a mere sum of opinions of its members. In case of the COSPAS-SARSAT Council, any decision at all times equals a sum of opinions of the four Parties. Hence, the Secretariat, which is by way of the Agreement provisions charged with supporting the Council, cannot have any tasks that have not been directly adopted and promulgated by all four Parties.

Although one might say that this distinction is not essential and does not have a drastic practical effect, a strictly legal analysis prompts a different conclusion. The voting rules, whether in a national or international setting, have a significant effect on the results. When a stringent two-thirds majority vote is required, the proposed document would more likely be a true compromise, which satisfies both the majority and the minority – otherwise a required two-thirds vote would not be satisfied. In case a simple majority vote is required, the text might be less of a compromise and rather a document that satisfies only the majority – since the votes of the minority are no longer essential for the document adoption. The bottom line is that the voting rules significantly affect the contents of the adopted document.

In the international legal practice the requirement of the permanent members' of the United Nations Security Council unanimous vote has been contentious from its inception, and obviously there is a reason for that: the unanimity rule is substantively different, in both practical and legal realms, from the majority rule. Therefore, it is suggested that in the closed system comprised of four COSPAS-SARSAT Parties, the unanimity rule makes a great difference; and not in the least with regard to the functions performed by the Secretariat.

Second, an international character of work is generally understood to mean independence of an entity's employees from the influence of States of their nationality or location. The 1988 Agreement is silent on that matter. The Headquarters Agreement, while providing functional privileges and immunities on the territory of Canada, including immunity from legal process, taxation, national service obligations, immigration restrictions and alien registration, is silent on the matter of personnel independence and freedom from influence from the States of their nationality and, strictly speaking, from influence of the State of their location in discharge of their functions.

These two considerations taken together with the Secretariat's mandate strictly limited to performance of purely administrative tasks, lead to the conclusion of a non-existent international character of work of the COSPAS-SARSAT Secretariat. A similar situation has been encountered in the course of the analysis of the Committee on Earth Observation Satellites

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mechanism of cooperation and the institutional mechanism of cooperation created by the Code of Conduct for Outer Space Activities. The COSPAS-SARSAT Secretariat is closer to that of the Code of Conduct mechanism, because just as the latter it is not responsible for external contacts, it does not prepare a development strategy, and it does not undertake any steps toward solicitation of new associated States. The goals of the Programme, however, are closer to those of the Committee on Earth Observation Satellites: it is aiming at practical applications of space technologies, not regulation of certain outer space activities as the Code does. This issue will be discussed in greater detail later on, and at this point it is only suggested that a choice of a particular institutional approach might be dictated by a multitude of factors, and the success of the mechanism of cooperation in performing declared goals is the only relevant measure of correctness of the choices made.

10.2.3 International Legal Personality

To provide sufficient material for conclusions based on the six criteria analysis, it should be decided whether the COSPAS-SARSAT Programme is an entity possessing international legal personality. A Russian scholar suggested that the 1988 Agreement unequivocally provided international legal personality to the created mechanism, and that this conclusion was further supported by practice.²⁷ Earlier in the chapter it has been suggested that the 1988 Agreement is at best ambiguous regarding the definition and, consequently, the nature of the Programme; hence, the Agreement's claimed clarity on the matter of international legal personality cannot be accepted. Four practice-related arguments were proposed in support of the existing international legal personality of the Programme.

The first argument in favor of an existing international legal personality of the COSPAS-SARSAT Programme mechanism of cooperation is an establishment of two independent organs – the Council and the Secretariat.²⁸ Acquiescing that presence of independent organs is generally characteristic for an entity with an international legal personality, the author did not elaborate on the features of these organs that would allow identifying them as working independently and possessing an international character of work. An international organization, based on the criteria

²⁷ See, A.B. Лукьянова, Международно-правовые проблемы использования космоса в целях мореплавания [International Legal Problems of Using Outer Space for the Purposes of Seafaring] // Автореферат дисс. на соискание ученой степени к.ю.н. – М., 2005.

²⁸ *Id.* at 30.

identified in Chapter 1, must, one, have an international organization's secretariat, and two, must have an international legal personality, which is defined using four characteristics. Earlier it has been concluded that the Programme's Secretariat does not amount to an international organization's secretariat, although it goes beyond a typical conference's secretariat (or secretariat of a meeting commenced with connection to an international treaty). While strictly speaking one of the elements necessary for an international organization is not present in the COSPAS-SARSAT Programme, the 'transitory' status of the Secretariat should not be viewed as barring possible identification of international legal personality and, thus, qualification as an international organization.²⁹

Usually, for existence of an international organization's legal personality four criteria should be fulfilled: (1) it is an association of States or international organizations or both with lawful objectives; (2) it has one or more organs, which are not subject to the authority of any other organized communities; (3) legal powers and purposes are distinct between the organization and its member States; and (4) it possesses legal powers exercisable on the international plane and not solely within the national systems of one or more States.

The COSPAS-SARSAT Programme is unquestionably an association of States with lawful objectives. The conclusion that the Programme has two organs, which are not subject to the authority of any other organized communities, puts it in compliance with two out of four criteria of an existing international legal personality. The opinion of the Russian scholar earlier referred to claimed the last two criteria to be fulfilled based on three pieces of evidence: existence of functional privileges and immunities of the personnel as established by the 2005 Headquarters Arrangement; ability to conclude international treaties regulated by the 1986 Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations; and participation in the International Maritime Organization and the International Civil Aviation Organization in the status of observer.³⁰ These three arguments will now be addressed.

²⁹ In the light of the absence of the 'law of international organizations', as it has been discussed in Chapter 1, and considering the correct assertion made by many scholars that it is difficult to reduce a variety of forms of association of States to a one-and-for-all model of an international organization, we suggest that a comprehensive review of the institutional model adopted within an entity should be completed in order to make persuasive conclusions. ³⁰ See, A.B. Лукьянова, Международно-правовые проблемы использования космоса в целях мореплавания [International Legal Problems of Using Outer Space for the Purposes of Seafaring] // Автореферат дисс. на соискание ученой степени к.ю.н. – М., 2005. С.30.

First, as has been shown earlier, functional privileges and immunities of the Programme, its officials and representatives of States as set out in the 2005 Arrangement are established solely on the national plane and are applied only on the territory of Canada. As per provisions of Articles 25 and 26 of the Headquarters Arrangement, this agreement is not legally binding in the international legal sense and does not convey similar privileges and immunities on territories of other Parties to the 1988 Agreement. Thereby, the conclusion is drawn that no functional privileges and immunities of the Programme and its officials are existent on the international plane.

Second, the 1986 Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations in Article 2 defines the term 'treaty' as "an international agreement governed by international law and concluded in written form."³¹ Basically, this definition is a shortened version of the definition used in the 1969 Vienna Convention on the Law of Treaties. The 1969 Vienna Convention on the Law of Treaties, in turn, applies only to legally binding treaties governed by international law irrespective of their form or designation.³² By extension, the 1986 Vienna Convention similarly applies only to legally binding treaties between States and international organizations or between international organizations.³³

Currently, there are five international agreements concluded within the COSPAS-SARSAT system, and four of them are concluded on behalf of the States-Parties to the International COSPAS-SARSAT Programme Agreement.³⁴ The only document concluded on behalf of the Programme itself is the Understanding Between the COSPAS-SARSAT

 ³¹ Vienna Convention on the Law of Treaties between States and International Organizations or between
 International Organizations, Vienna, 21 March 1986, Doc. A/CONF.129/15. The Convention is not yet in force.
 ³² Article 1 of the Vienna Convention on the Law of Treaties, done May 23, 1969, entered into force January 27, 1980. 1155 U.N.T.S. 331.

³³ United Nations Treaty Collection, *Definition of Key Terms Used in the UN Treaty Collection*, https://treaties.un.org/Pages/overview.aspx?path=overview/definition/page1_en.xml#treaties.

³⁴ Arrangement between Canada, The Republic of France, the Russian Federation and the United States of America regarding the Headquarters of the International COSPAS-SARSAT Programme, April 2005; Arrangement on Cooperation between the Cooperating Agencies of the Parties to the International COSPAS-SARSAT Programme Agreement and the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) on the EUMETSAT Contribution to the COSPAS-SARSAT GEOSAR System, October 2010; Understanding Between the States Parties to the International COSPAS-SARSAT Programme Agreement and The Republic of India Concerning The Association of The Republic of India with the COSPAS-SARSAT Programme as a Provider of Geostationary Satellite Service, February 2007; Declaration of Intent for Co-operation on the Development and Evaluation of the International COSPAS-SARSAT Programme and the Galileo Joint Undertaking, December 2006. All available at www.cospas-sarsat.int.

Programme and the Gouvernement du Québec concerning Exemptions, Fiscal Advantages and Courtesies accorded to the Programme, Representatives of Member States and Officials of the Secretariat. The Understanding, however, as it has been explained above, is not governed by international law since it regulates relations between a part of a sovereign State and an entity designated an 'organization' solely for the purposes of this document. Moreover, three out of four agreements concluded on behalf of the Parties to the 1988 Agreement are also not binding under international law.

In the end, there is only one legally binding international cooperative agreement governed by international law within the COSPAS-SARSAT system, and even this one is concluded on behalf of the State-Parties, not the Programme itself. The conclusion should be drawn that the Programme is not capable of concluding international treaties governed by the rules of the 1986 Vienna Convention: neither is it capable of entering into international agreements with States or international organizations, nor is it capable of concluding legally binding agreements governed by international law.

Third, participation in the International Maritime Organization and the International Civil Aviation Organization in the status of observer similarly does not add anything to the case of identifying the COSPAS-SARSAT Programme as an international organization. The International Maritime Organization allows for participation of international intergovernmental and non-governmental organizations in the status of observer. Acknowledging that COSPAS-SARSAT is put on the list of 'IGO observers' in the International Maritime Organization,³⁵ it is still argued that such a designation is irrelevant for the purposes of international legal analysis. The International Committee of the Red Cross³⁶ and the Memorandum of Understanding on Port State Control in the Black Sea Region,³⁷ for example, are not international intergovernmental

³⁵ See, Intergovernmental Organizations, which have Concluded Agreements of Co-operation with IMO, http://www.imo.org/About/Membership/Pages/IGOsWithObserverStatus.aspx.

³⁶ See, W.A. Sturges, *Legal Status of the Red Cross*, 56 Mich. L. Rev. 1(1957), at 3. ("In Red Cross circles there is the all-embracing "The International Red Cross." It is composed of three Red Cross Organizations as follows: (1) "National Societies," (2) the "League of Red Cross Societies," and (3) the "International Committee of the Red Cross." ... The "International Committee of the Red Cross" is a membership corporation under the Swiss Code. ... Its headquarters are at Geneva; its membership is limited to twenty-five Swiss citizens; members are elected for three year terms.") For more information *see*, the official website of the Committee of the Red Cross, https://www.icrc.org/en.

³⁷ For more information *see*, the official website of the Port State Control in the Black Sea Region, http://www.bsmou.org/about/.

organizations in the strict international legal sense, but still have the status of an 'intergovernmental organization observer' in the International Maritime Organization.

The International Civil Aviation Organization, which is open exclusively to sovereign States and in accordance with the Standing Rules of Procedure of the Assembly allows invitation of non-Contracting States and international organizations in the status of observer,³⁸ has recently invited the representative of Taiwan – whose international legal status is controversial, to say the least, and which hardly falls into either the category of a non-Contracting State or an international organization – to participate in the status of a *guest*,³⁹ the status, which is absent not only from the International Civil Aviation Convention, but also from the Standing Rules of Procedure. Accordingly, the status of observer in the International Civil Aviation Organization or International Maritime Organization *ipso facto* does not confer the status of subject of international law onto an entity with such a status. Hence, the grant of particular statuses in these two organizations is irrelevant in the course of the legal analysis aiming at determination of the legal nature of the entity in question.

Based on the preceding discussion, the conclusion should be drawn that the COSPAS-SARSAT Programme does not have legal powers and purposes distinct from its participants, and does not possess legal powers exercisable on the international plane and not solely within the national systems of one or more States. Moreover, the very definition of the Programme as set forth in the 1988 Agreement – "the COSPAS-SARSAT activities carried out by the Parties to provide, operate and coordinate a space segment, a ground segment and radiobeacons," focusing on activities and not mentioning anywhere characterization of the Programme as, for example, an 'entity', or 'organization', or 'arrangement'- shifts the emphasis toward *coordination of activities by the States* from the performance of necessary activities *within the created institutional framework*. In other words, institutional arrangements are seen as secondary, incidental to the centerpiece of the system created by the 1988 Agreement, namely the provision of alert and location services in support of search and rescue through utilization of compatible space and ground segment equipment contributed by the Parties and associated States. Therefore, the conclusion is drawn that the Programme does not possess international legal personality.

³⁸ See, M. Milde, International Air Law and ICAO (2008), at 132.

³⁹ See, J. Yeh, *Taiwan to Attend ICAO Assembly as 'Invited Guest'*, The China Post, September 14, 2013, available at http://www.chinapost.com.tw/taiwan/intl-community/2013/09/14/388889/Taiwan-to.htm.

10.2.4 Term of Existence

Article 20 contains a not so common duration clause.⁴⁰ It states: "This Agreement shall remain in force for a period of fifteen years from the date on which it enters into force and shall be extended automatically for successive period of five years." Literal reading suggests that the mechanism has been created for a limited period, but the 'automatic extension' clause suggests a presumably unlimited duration of the Programme. At the same time, it might be suggested that such a duration clause has been chosen intentionally to leave room for easier termination of the Programme, though no clear indication toward this option is provided in the text. Article 17 allows withdrawal of any Party at any time subject to notification and a one-year grace period, so the complicated duration clause could not have been chosen merely to provide a 'way out'.

In the political science doctrine it has been suggested that States are "most likely to seek time limitations when uncertainty over future gains is high, when expected costs from periodic renegotiation are low relative to anticipated gain from cooperation," so duration clauses "offer parties a form of insurance against unfavorable changes in the distribution of future gains from international cooperation."⁴¹ In the international legal doctrine it has been argued that "when the parties are not sure how long they envisage the treaty lasting, they will often include a clause that provides for an initial term that can be extended, either expressly or tacitly, as well as for withdrawal. Such flexible provisions enable the parties to keep their options open."⁴²

The latter view comes closest to explaining the intricate COSPAS-SARSAT duration clause. Authors pointed out that the initial cooperative undertaking and later on the 1988 Agreement survived in a very tense, cooperation-unfriendly environment of the Soviet intervention in Afghanistan, where the Reagan Administration gave serious consideration to allowing the umbrella bilateral US-Soviet civil space agreement to lapse in May 1982, and European open complaints of the United States domineering and unreliability in their other cooperative projects.⁴³ In the concluding part of the chapter the reasons behind COSPAS-SARSAT's success will be discussed in greater detail, but at this point it would suffice to grasp

⁴⁰ Cf., United Nations. Treaty Section, Final Clauses of Multilateral Treaties: Handbook (2003), at 106.

⁴¹ B. Koremenos, *Contracting Around Uncertainty*, 99, 4 Am. P. Science Rev. 549-565 (2005), cited in M.S. Copelovitch and T.L. Putnam, *Context Matters: International Institutions and the Limits of Rational Design*, Paper presented at the annual meeting of the Midwest Political Science Association 67th Annual National Conference (2009), available at <http://citation.allacademic.com/meta/p361335_index.html. *See* also, L.R. Helfer, "Flexibility in International Agreements," in J. Dunoff and M.A. Pollack (eds.), *Interdisciplinary Perspectives on International Law and International Relations* (2013), at 190.

⁴² A. Aust, *Modern Treaty Law Practice* (2013), at 251.

⁴³ Cf., R.J.H. Barnes and J. Clapp, Cospas-Sarsat: A Quiet Success Story, 11 Space Policy 261 (1995), at 266-67.

the understanding of a persisting state of instability and uncertainty hanging over the Programme that led to introduction of a complex duration clause. By and large, it should be concluded that the COSPAS-SARSAT mechanism of cooperation has been created for an indefinite period of time, and provisions of Article 20 played the role of 'insurance' for the scenario where controversies became critically incompatible with continuance of cooperation.

In this context it should also be noted that while the 1988 Agreement allows voluntary withdrawal, it does not provide for expulsion. Given the compact participation in the Agreement and, more generally, the overall aim toward unimpeded control of each State over its equipment, such a provision would have been incompatible with the chosen approach to cooperation. Independent financing and vesting the responsibility for proper operation of the equipment used within the Programme presuppose a certain level of self-regulation along with a limited Programme's (understood as an entity or as other participating States) leverage in forcing a deviating State into compliance. Moreover, the COSPAS-SARSAT Programme's effectiveness depends on the equipment provided by the participating States; hence, expulsion of a State would impose greater detriment on the Programme compared to a relatively small damage that the expelled State would experience. Rational choice theory requiring weighting of benefit and harm entailed in any action suggests that the procedure of expulsion in this case is counterproductive and unnecessary.

10.2.5 Binding Force of Documents Produced

An overview of the functions of the COSPAS-SARSAT Council and Secretariat leads to the conclusion that no legally binding documents are being produced within this mechanism of cooperation. The Secretariat, as discussed earlier, has basic administrative functions and does not have policy-related powers. The Council, being the plenary organ and charged with a broad range of tasks, however, also does not have the right to adopt legally binding documents. The functions of the Council revolve around proper technical performance of the units comprising the system, and necessary communication with international organizations and associated States on matters of technical compatibility and performance. The only type of Council decisions that might be considered legally binding concerns the determination of participants' contributions to the common costs of the Programme. Article 11, for example, describing obligations of ground segment providers, uses the verb 'shall' that is generally regarded as conveying legal obligations. On the one hand, usage of this verb may often be triggered by mere grammatical considerations and not the desire to impose legally enforceable obligations;⁴⁴ on the other, the precise wording used in formulation of ground segment providers obligations later on in the Article suggests an intention to formulate legal obligations. More to the point, all these obligations, including adherence to technical specifications, delivery of distress alert and location information, provision of appropriate data, participation in appropriate meetings and payment of share of commons costs, are enumerated and described in greater detail in the internal document Guidelines for Participation.⁴⁵

The Guidelines play the role of the 'preliminary questionnaire' for States considering accession to the COSPAS-SARSAT Programme: if they agree to the terms and conditions of such participation, they formally announce their association with the Programme. This set of terms and conditions remains unchangeable for the duration of the State's participation in the Programme since the Council is only entitled to change technical characteristics and the contribution amount, but is not empowered to impose additional obligations. Consequently, participating States agree to the 'rules of the game', which remain the same throughout the game, though new techniques, like video-recording of the goal, can be added along the way. And neither the referee (the Council in this metaphor), nor the players (participating States) can substantively change the rules for everyone or just for one player.

10.2.6 Existence of Opportunity to Modify Obligations

Having concluded that legally binding documents are not produced by the organs of the Programme and are not being concluded on behalf of the Programme, the procedure for modification of obligations is redundant and has not been provided for in the 1988 Agreement or any other internal COSPAS-SARSAT document. Moreover, the unanimity voting procedure in the Council effectively precludes a possibility of adoption of a decision contrary to the wishes of the State-Parties to the 1988 Agreement.

⁴⁴ Cf., F.G. von der Dunk, "Contradictio in terminis or Realpolitik? A Qualified Plea for a Role of 'Soft Law' in the Context of Space Activities," in I. Marboe (ed.), Soft Law in Outer Space: The Function of Non-Binding Norms in International Space Law (2012), at 49.

⁴⁵ Guidelines for Participating in the COSPAS-SARSAT System, C/S P.007 (E), October 2009, Issue 5, available at www.cospas-sarsat.int.

The 1988 Agreement does provide for an amendment procedure. Article 18 stipulates that any Party may propose amendments. The Council should consider the proposal and make recommendation to the Parties concerning such proposed amendment. Amendments enter into force sixty days after the Depositary, whose functions are performed by the Secretary General of the International Civil Aviation Organization and the Secretary-General of the International Maritime Organization,⁴⁶ has received notification of the amendment acceptance from all the Parties; hence, a unanimity requirement is preserved with respect to adoption of amendments.

The other internationally legally binding agreement concluded within the COSPAS-SARSAT framework, the Understanding with India, provides only for an opportunity to terminate the agreement, but does not include an amendment procedure. In accordance with Article 39 of the Vienna Convention on the Law of Treaties, thereby, amendment of the Understanding with India is regulated by provisions of Articles 40 and 41 of the Vienna Convention on the Law of Treaties.⁴⁷

10.3 Evaluation and Conclusions

Based on the preceding analysis the conclusion is offered that the COSPAS-SARSAT Programme is a cooperative undertaking created for an indefinite period formally allowing participation only of States, but in practice allowing international organizations' involvement, that established separate organs, which, however, do not amount to an international organization's secretariat, and are not empowered to adopt legally binding decisions. By and large, COSPAS-SARSAT is a hybrid mechanism of cooperation combining features of a conference and an international organization. Two hybrid mechanisms of cooperation have already been encountered in the course of this book; despite their similarities in combining features of different categories of cooperation, each of them has unique features. The COSPAS-SARSAT Programme has peculiar rules of participation, a duration clause with an 'insurance' provision, and provides for maintenance of a common fund to finance the Secretariat and other necessary meetings. In addition to complex participation rules, the practice of COSPAS-SARSAT cooperation both with States and international organizations has made the matter even

⁴⁶ Art. 19 of the 1988 International COSPAS-SARSAT Agreement.

⁴⁷ Vienna Convention on the Law of Treaties, done May 23, 1969, entered into force January 27, 1980. 1155 U.N.T.S. 331.

more puzzling. This suggests there are different kinds of hybrids combining different elements of the three paradigms, but also maybe different elements of the six factors.

It is suggested that these specifics have been first and foremost triggered by the circumstances of the Programme's creation. The duration clause and funding scheme are the direct products of the chaotic political situation of the late 1980s. While the need for the space-based search and rescue system was obvious, States were reluctant to bind themselves by a set of rigid obligations; more so, they were reluctant to hand over operation of their national satellites to an international entity with limited participation. Nor were they prepared to hand over operation of satellites to an entity where their vote might have been overridden by the majority vote. And this is where the unanimous voting procedure originated.

The COSPAS-SARSAT practice of cooperation with both States and international organizations is a logical consequence of the outlined politico-ideological reflections. Indeed, it is quite surprising that not a single State has been granted the status of a Party to the Agreement later on, although India clearly complied with all required criteria. It is suggested that India was admitted to the Programme in a specially created status due to Parties' unwillingness to re-draw the routine of their cooperation that had been settled for over twenty years. Continuous collaboration of four States – even though clearly their representatives had not been the same throughout these years – led to establishment of mutual understanding, customary procedures and gentlemen's agreements on how to handle different matters; introduction of a fifth Party, possibly, would have disturbed well-settled habits within the four-member Council.

The practice of cooperation with international organizations seems to be a logical development of the system that was created by States with dramatically different approaches to international law, but which over time have become closer in their legal and political views, allowing for greater understanding and compromise. While cooperation with international organizations on a par with States was ideologically intolerable for the Soviet Union, a compromise was reached that now allows including international organizations in the cooperative system of the COSPAS-SARSAT Programme. At this stage introduction of amendments to the 1988 Agreement to furnish organizations' presence in the international life of the Programme appears to be unnecessary: first, in practice the ambiguous wording of the Agreement has not hindered necessary cooperation, and second, the Agreement focuses on

technical aspects of cooperation and, hence, its legal precision might be viewed as secondary to the system's success.

Generally, scholars identified four reasons behind the Programme's success. "First, costs were kept low, both in the demonstration phase and by deciding to stay with a form of organization focused on cooperation among national technical agencies and utilizing a piggyback payload. Second, the project was designed to demonstrate clear practical – and in some cases dramatic – benefits which could be quantified in terms of money and lives saved. Third, the program's low political visibility and multilateral character allowed it to avoid some potential political obstacles. Fourth, the program benefited from strong supporters in key positions of influence."⁴⁸ To this list one more reason should be added – putting technical aspects in the center of the Programme.

Political and legal disagreements are capable of halting the best of the cooperative efforts, and the late 1980s was the time when such risks were on the higher side. By way of preservation of complete national control over space segments of the system the Parties excluded the most contentious issue from the agenda, concentrating on ways and means to bring forth technical compatibility. An unusual duration clause, peculiar participation rules, limitation of international organizations' participation and utilization of allowance-based funding of the Programme's organs coupled with financial independence in other areas, all these, especially taken together, create an extraordinary structure of cooperation. Crucially important in the light of the geopolitical situation the Programme had been created in, it turned out to be "a productive venture without political undertones or technology transfer adversely affecting US national security."⁴⁹ No matter how unconventional the chosen formulas might be from a legal perspective, they lose their significance in the light of the outstanding results achieved using this mechanism of cooperation. If saving thirty-seven thousand lives requires a bold approach to international legal cooperation, where the word 'legal' is put in the far corner as being of lesser importance, only the most ferocious positivists might voice opposition.

By way of conclusion, the COSPAS-SARSAT Programme is a hybrid mechanism of cooperation based on a legally binding treaty, uniting States, providing an institutional mechanism to facilitate performance of the Programme's goals, but excluding the most

⁴⁸ R.J.H. Barnes and J. Clapp, Cospas-Sarsat: A Quiet Success Story, 11 Space Policy 261 (1995), at 268.

⁴⁹ N. Jamgoth, J. Knappert and R.C. Carpio, *Perceptions and Confidence Building in US-Soviet Relations*, 41 Int'l J. on World Peace Vol. 5, No. 2 (Apr-Jun 1988), at 45-46.

monumental elements of an international organization from the structure, making the mechanism more flexible, light-weight and capable of concentrating on substantive issues, abandoning the need to deal with bureaucratic procedural matters.

The hybrid mechanism of cooperation of the COSPAS-SARSAT system resembles the Committee on Earth Observation Satellites mechanism in its goals, but from an institutional perspective comes closer to the one created by the Code of Conduct for Outer Space Activities. The goals of both the Programme and the Committee on Earth Observation Satellites focus on practical applications of space technologies, not regulation of certain outer space activities as the Code does. The institutional mechanism, at the same time, is closer to that of the Code in its simplicity. The Programme has two organs: the Council – the plenary organ, and the Secretariat – an administrative organ not amounting to an international organization's secretariat. The Code of Conduct similarly has a plenary organ – the annual meetings of Subscribing States, and an administrative organ not amounting to an international organization's secretariat – the Central Point of Contact.

The Programme mechanism of cooperation, as noted above, has a number of peculiar features and particularly differs from the other two analyzed hybrid mechanisms in terms of participation, which might well be attributed to specific circumstances of the Programme creation. But nowadays it has evolved into an entity uniting forty-two participants, which is potentially open to universal participation.

One more feature distinguishes the COSPAS-SARSAT hybrid mechanism of cooperation from those two encountered earlier: the Programme is based on a legally binding international treaty. Presumably, founding an institutional mechanism on a legally binding treaty signals greater stability compared to mechanisms based on 'soft law' documents and a greater legal precision. Practice, however, disavows these presumptions. The Committee on Earth Observation Satellites, despite having legally non-binding underlying documents, has been effectively working for approximately the same period as the Programme. The Code of Conduct, as it has been shown in Chapter 9, strives for legal precision in enunciation of substantive provisions of the Code; the 1988 Agreement, by contrast, adopted rather broad formulations, some of which, namely the introduction of the fourth category of association with the Programme, were amended later by way of additional documents without introduction of relevant changes to the text of the Agreement, suggesting lessened concerns for legal precision.

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Therefore, it should be concluded that creation of a hybrid mechanism of cooperation using a legally binding treaty *per se* does not add anything to institutional or substantive characteristics of the mechanism of cooperation in question.

The mission of the COSPAS-SARSAT Programme is to provide accurate, timely and reliable distress alert and location data to help search and rescue authorities assist persons in distress. As of August 2015 more than one million and six hundred distress beacons were operational worldwide supported by a network of eleven satellites and thirty-one mission control centers. The Programme has proved to be an important element in ensuring sustainability by way of saving people's lives.

These are the impressive results; from the standpoint of the present analysis, however, the most notable feature is the level of coordination achieved using the COSPAS-SARSAT mechanism of cooperation. Efforts of over forty participants are being coordinated in order to provide timely information about location of persons in distress based on a comparatively short and not overly detailed treaty. It is remarkable that in 1994 the director of the International Civil Aviation Organization's Air Navigation Bureau cited the Programme as "an interesting and potentially useful precedent for international cooperation with respect to funding, ownership, management and operation of space systems."⁵⁰

While the COSPAS-SARSAT mechanism might not be a model, it indeed can be used as a useful precedent. Some of the Programme's characteristics, for example, the duration clause, the voting procedure and the 'closed' membership, are reflections of the unique circumstances of the system's creation and, thus, their adoption might not be desirable in future endeavors. There are three Programme characteristics that can be useful in design of future space systems: the preservation of national ownership over space equipment, the imposition of operation responsibilities onto participating States, and the focus on technical coordination through cooperation of national agencies. All these characteristics have been identified in the Committee on Earth Observation Satellites analysis.

It can, thereby, be suggested that hybrid mechanisms of cooperation are effective tools in international space cooperation aiming at practical space applications in a narrow field, which have modest institutional structures, and are premised on financial and operational independence of participating States. Although it is yet to be seen whether the Code of Conduct mechanism of

⁵⁰ R.J.H. Barnes and J. Clapp, *Cospas-Sarsat: A Quiet Success Story*, 11 Space Policy 261 (1995), at 268.

cooperation proves to be effective in achieving regulatory purposes, it is suggested that the hybrid mechanisms of cooperation are most useful in cooperative projects functioning in a well-established legal regime but requiring meticulous technical coordination. The Outer Space Treaty along with the three elaborating conventions has established the framework of international outer space legal regime, and currently space law is being developed either using 'soft law' instruments or on national levels, thereby, making the prospect of a new international outer space treaty adoption in the near future illusive.

Space technology, however, has become an indispensible part of modern life, and the hybrid mechanisms of cooperation might prove to be the most helpful instruments for international space cooperation benefitting both States and mankind in general. While the Committee on Earth Observation Satellites mechanism of cooperation is the example of cooperation providing visible benefits to cooperating States, the COSPAS-SARSAT Programme is unquestionably an example of cooperation benefiting the whole mankind in providing important search and rescue services, continuing to be an outstanding precedent of international space cooperation saving thousands of lives every year.

Chapter 11. European Space Agency

11.1 Overview

The United Nations General Assembly in its 2011 resolution emphasized "that regional and interregional cooperation in the field of space activities is essential to strengthen the peaceful uses of outer space, assist States in the development of their space capabilities and contribute to the achievement of the goals of the United Nations Millennium Declaration."¹ In the same vein, scholars have acknowledged that the role of international organizations in the space field continues to be essential in promoting space activities at the national, regional, and interregional levels. Regional cooperative mechanisms also "have a specific role in providing platforms to enhance cooperation and coordination between spacefaring nations and emerging space nations, and also to establish partnership between users and providers of space-based services."²

In this chapter one such mechanism will be scrutinized. The European Space Agency (ESA) is a prominent example of a prosperous regional arrangement delivering excellent results and proving to the whole international community that a regional mechanism of cooperation might be effective in both regulatory and practical areas, which can be entrusted with performance of a wide array of functions, including daily management of space projects of a significant complexity, as the International Space Station project has proved. First, history and structure of the Agency will be reviewed, followed by the six criteria analysis. Second, distinctive features of the mechanism will be reviewed, also paying attention to the place of ESA within the European-region integration. Finally, the analysis will focus on the reasons behind the undisputed success of the European Space Agency mechanism of cooperation in order to distinguish traits and features that made it an example and a role model for other regions striving for cooperation-based space activities.

"Following some initial attempts of in particular the United Kingdom (in cooperation with the United States) and France to undertake national space activities within a few years after Sputnik-1's flight, it soon became clear that Europe's leading nations, still recovering from the

¹ UNGA Res. A/RES/66/71, para. 16, 9 December 2011.

² T.C. Brisibe, "A Normative System for Outer Space Activities in the Next Half Century," in *Proceedings of the International Institute of Space Law 2013* (2014), at 23.

Second World War at that time, were essentially a size too small to develop a comprehensive and successful space program on their own."³ The ESA's first Director General Mr. Gibson rightfully noted in 1984: "The countries in Europe are all too small to be able separately to give economic battle to the giants – both those fully grown and those, like China, who are still developing. The concept of European cooperation was born of realistic economic necessity rather than sentiment, but it needs constant fostering in all fields – and space is no exception."⁴ By and large, institutional consolidation of the European space sector was driven by the need for an autonomous and self-defined European role in international space cooperation, and by a growing desire to halt European dependencies and the lack of independent access to space.⁵

The establishment of the European Space Agency was based on a decision made by the Ministerial Meeting of the European Space Conference on December 20, 1972 to form a new entity by merging the European Launchers Development Organization and the European Space Research Organization. Participating European governments were conscious of the need to redefine Europe's space policy and the European space programs in science, applications and launcher fields.⁶ This decision, in turn, was spurred by the initial agreement on space applications programs, including METEOSAT, TELECOM and AEROSAT, reached at the 44th meeting of the European Space Research Organization Council, marking the shift of the main direction of European space cooperation from space science toward space applications programs.⁷ At that point the journey toward a unified, uniformly structured space cooperation in the European region has begun.

De facto the new organization came into existence on the day after the signature of the European Space Agency Convention, that is on May 31, 1975, since on this very day the organizational structures of the two previous organizations were merged. De jure, however, the Agency was formed only after the Convention's ratification by all members of the former European Launchers Development Organization and the European Space Research Organization, which happened on October 30, 1980. "Within the legal structure obviously the Convention is

³ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 208. ⁴ R. Gibson, "By the Way," in N. Longdon and D. Guyenne (eds.), *Europe, Two Decades in Space, 1964-1984* (1984), at 51.

⁵ See, B. Schmidt-Tedd, "The Geographical Return Principle and its Future within the European Space Policy," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 85-86.

⁶ See, H. Kaltenecker, The New European Space Agency, 5 J. Space L. 37 (1977), at 37.

⁷ See, R.F. von Preuschen, The European Space Agency, 27 Int'l & Comp. L. Q. 46 (1978), at 46.

the highest document hierarchically speaking, with five Annexes integrally part of the Convention.³⁹ The Convention with the appended Annexes defines the Agency's objectives and scope of powers, and provides for a comprehensive regulation of the Agency's activities to the extent, of course, that the manifold practical endeavors ESA is and may be charged with, can be comprehensively regulated.⁹

Article II of the Convention establishes the ESA purpose: "The purpose of the Agency shall be to provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space applications systems." It has been suggested that the Agency's identity emerging from Article II is multidimensional, like the different faces of a cube. On the one side is the face of the executive instrument the European Launchers Development Organization used to be, and ESA continues to be. Other faces of the cube, namely the ESA's policy and integrative role, its space competence, its civilian role, its research and development role, are what make the Agency a cooperative regional mechanism with the comprehensive mandate in the European space sector competent to complement and at times substitute for national space programs of its members.¹⁰

"The Agency therefore effectively has a threefold mission: (1) to stimulate the development of material and technical resources of the member states through a distinct and innovative framework for international cooperation amongst them; (2) to integrate national space programs as much as possible at a European level, establishing greater economies of scope and scale and allowing for a certain level of specialization; and (3) to strengthen European space efforts for exclusively peaceful purposes at a global level, aiming for international cooperation with the other space powers whilst establishing and maintaining Europe's own position within the global space arena."¹¹

Assignment of these broad responsibilities to the Agency obviously could not have been attempted without the proper institutional mechanism. The ESA Convention provides for two

⁸ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 213. ⁹ It was correctly noted that the ESA Convention is the living document, and its provisions are being clarified and detailed by the subsequent practice. *See*, K. Madders, *A New Force at a New Frontier: Europe's Development in the Space Field in the Light of Its Main Actors, Policies, Law and Activities from Its Beginnings Up to the Present* (2006), at 180.

¹⁰ Cf., K. Madders, A New Force at a New Frontier: Europe's Development in the Space Field in the Light of Its Main Actors, Policies, Law and Activities from Its Beginnings Up to the Present (2006), at 181.

¹¹ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), Handbook of Space Law (2014), at 214.

permanent organs of the Agency: the Council and the Director General supported by the staff. Article I specifies that the Headquarters of the Agency are situated in the Paris area, where presumably main organs are to be located. ESA has several additional facilities, including the Space Technology Center located in the Netherlands, the Space Operations Center in Germany, the Space Research Institute in Italy, several telemetry stations and its launching base in French Guyana.

Article XI establishes the Council, a permanent plenary organ composed of representatives of all member-States. Structurally, the Chairman, who is assisted by the Bureau, heads the Council. Each member of the Council has one vote with regard to all issues, but shall not vote on questions pertaining to the programs in which the particular State does not participate. The Council, being the plenary organ of the Agency, is tasked with addressing the most important issues pertinent to the overall functioning of the organization and development of its activities. Specifically, the Council approves the activities and programs, determines the level of resources to be made available to the Agency for the coming five-year period, adopts recommendations addressed to member-States regarding optimization of States' resources used in mandatory activities, accepts optional programs, adopts annual work plans, adopts the general budget of the Agency and of each program, keeps under review expenditures and publishes annual audit results, authorizes transfer of technology to non-members, decides on admission of new members, and takes all other measures necessary for fulfillment of the purposes of the Agency. The Council is considered superior to other organs in the ESA organizational hierarchy, therefore allowing directing all arising issues and conflicts to the Council for arbitration and resolution in a timely and uncomplicated manner.¹²

Article XI does not provide for specific intervals between the Council meetings, stating that the meetings are to take place as and when required. Furthermore, the Council might meet on either delegate or ministerial level, thus providing a significant level of flexibility for States in deciding when and on what level the meetings are to take place. Normally, the Council meetings on ministerial level occur once in three years in order to address major issues and, if possible, make consolidated policy decisions, whereas the delegate-level Council handles ordinary overall policy over the course of each year based on the reports provided by its standing plenary

¹² See, K. Madders, A New Force at a New Frontier: Europe's Development in the Space Field in the Light of Its Main Actors, Policies, Law and Activities from Its Beginnings Up to the Present (2006), at 198.

committees. It has been explained that periodical Council meetings on ministerial level are sufficient for the ESA structure, which embodies a unified European space policy. That is in contrast to its predecessors, whereas the European Launchers Development Organization and the European Space Research Organization were separate international organizations, and whose activities had to be coordinated by a high level body working on a permanent, or at least regular, basis.¹³ At the same time, in the light of the new structure of cooperation there was a need to substitute former European Space Conferences, and the Council meetings on ministerial level were seen as a viable alternative.¹⁴

In order to facilitate performance of the Council's broad functions, the Convention calls for establishment of the Council's Science Program Committee and other necessary subordinate bodies. The system of subordinate bodies was established in 1975 and since has been amended to a certain extent, though the overall scheme has been preserved. In addition to the Science Program Committee such other organs as the Administrative and Finance Committee, the Industrial Policy Committee, the International Relations Committee, the Programme Boards and several others have been created.¹⁵

The Council and its subordinate bodies adopt decisions by voting. The voting system within ESA can be characterized as follows. Annex III provides for a weighted voting on optional programs' decisions, where only their participants can normally vote. Since the cases where such a procedure is utilized are rather sporadic – that is starting or halting a new program, it does not disrupt otherwise simple voting rules: majority is the rule,¹⁶ the two-thirds majority the exception, and unanimity the rarity.¹⁷

The ESA institutional system is financed from the Agency common costs budget. States' contributions to common costs of the Agency are calculated based on average national income of the State. Effectively a 'weighted' financing system has been established; and it co-exists with the 'one member – one vote' principle. A similar system is used in most international organizations, and has been often criticized, especially as applied to the United Nations.¹⁸ It has

¹³ See, R.F. von Preuschen, The European Space Agency, 27 Int'l & Comp. L. Q. 46 (1978), at 57.

¹⁴ See, H. Kaltenecker, *The New European Space Agency*, 5 J. Space L. 37 (1977), at 38.

¹⁵ See, K. Madders, A New Force at a New Frontier: Europe's Development in the Space Field in the Light of Its Main Actors, Policies, Law and Activities from Its Beginnings Up to the Present (2006), at 200-02. ¹⁶ Article XI (6)(d) of the European Space Agency Convention.

 ¹⁷ See, K. Madders, A New Force at a New Frontier: Europe's Development in the Space Field in the Light of Its Main Actors, Policies, Law and Activities from Its Beginnings Up to the Present (2006), at 198.
 ¹⁸ See, W.G. Vitzthum et al., Völkerrecht [International Law] (2007), at 467-68.

been suggested that having the same number of votes notwithstanding the financial contribution effectively diminishes value of the vote of those members with highest contributions, and amounts to plain inequality despite the motives underpinning the 'one member – one vote' principle. This inequality in the ESA context is being mitigated by the established financing cap, guaranteeing that no member shall be required to pay contributions is excess of twenty-five percent of the total amount of contributions.

11.2 Six-Criteria Analysis

11.2.1 Membership/Participation

ESA only allows membership of sovereign States. In accordance with Article XXI, the Convention entered into force after member-States of the European Space Research Organization and the European Launch Development Organization signed the Convention and deposited their instruments of acceptance. Therefore, the Article effectively enumerates ten founding member-States. All other States may accede to the Convention as per Article XXII subject to approval of the Council by the unanimous vote of all members. The Convention does not provide for an observer status, but does mention 'associate membership'. This status can be granted to a non-member State, which wishes to participate in a future project, and it is granted pursuant to an international agreement concluded between the Agency and the respective State in accordance with provisions of Article XIV (3). Therefore, even the 'associated' membership is restricted solely to States, and no other subjects of international law can legally become integrated with the Agency.

Thus, in accordance with the ESA Convention membership of, for example, the European Union in ESA is legally impossible. This is a noteworthy feature of the Agency particularly in the light of the growing inclusion of the European Union in the space sector, necessitating discussion as to proper ways and means of cooperation between the European Union and ESA. This question will be briefly addressed below.

11.2.2 Secretariat

The Director General is the second permanent organ of ESA, functioning as the chief executive officer of the Agency and its legal representative. The Director General is appointed

by the two-thirds majority vote in the Council for any period as defined by the Council. He has broad administrative functions, including overall management of the Agency, execution of its programs, and implementation of its policy. The Director General works in close cooperation with the Council by way of submitting proposals concerning activities, programs and other measures necessary to fulfill the Agency's purpose. In the furtherance of concerted and coordinated actions of the two organs, the Director General is required to make annual reports to the Council and ensure their timely publication.

The Director General is assisted by any necessary scientific, technical, administrative and clerical staff. Article XII declares the 'exclusively international' character of the responsibilities of the Director General and staff, and requires that member-States respect the international character of their work and shall not seek to influence them in the discharge of their duties. Additionally, to ensure an independent and objective discharge of functions by the Agency's employees, ESA has established its own internal legal system governing employment contracts of ESA staff. There is a good reason for creating such internal regulations. Since officials are recruited from any of the member-States and can be assigned for service in any respective country, the choice of a particular national jurisdiction would be arbitrary. Moreover, designation of a particular national law as governing employment relations could result in a dependency to a certain extent, and leave a possibility for national pressure.

In accordance with Article XV and Annex I of the ESA Convention, the Director General and staff are "to ensure in all circumstances the unimpeded functioning of the Agency and the complete independence of the persons"¹⁹ to whom the privileges and immunities are accorded. The Director General and his staff are granted personal privileges and immunities, including immunity from arrest and detention, jurisdiction, alien registration formalities and the like, and are provided with limited privileges and immunities upon leaving the Agency's service.

It can, therefore, be concluded that the Director General assisted by the staff performs functions of the secretariat. It is a separate organ obviously working on a permanent basis, considering the Director General's task of the overall management of the Agency and his status of the ESA legal representative, and financed from the ESA common costs budget. In addition to broad functions of the Director General, provisions of Articles XII and XV unequivocally assert the international character of work, putting the ESA secretariat as represented by the Director

¹⁹ Art. XXII of Annex I to the Convention for the Establishment of the European Space Agency.

General and necessary staff in compliance with all three criteria of an international organization's secretariat.

11.2.3 International Legal Personality

ESA's structure is regarded as an example of the generally introduced model of a classical international organization.²⁰ First and foremost, a classical international organization is characterized by a legal personality. Just as other international organizations, ESA possesses both international and national legal personality. "The Convention confers in general terms legal capacity, which has undoubtedly an international character as it may transmit recommendations, impose rules on the Member States, conclude agreements with third parties and decide on the financial contributions of States. ESA is also bound by other multilateral space agreements provided their applicability is relevant to international organizations."²¹

Article XV and Annex I spell out privileges and immunities of the Agency. Particularly, the Agency has the capacity to contract, acquire and dispose property, be a party to legal proceedings; it enjoys inviolability of its premises and archives, and has immunity from jurisdiction and execution, taxes, import-export duties and the like. Further, the Convention stipulates that representatives of member-States while exercising their functions and in the course of their journeys to and from the meetings are entitled to immunity from arrest and detention, from seizure of their personal luggage; they enjoy immunity from jurisdiction, inviolability for all their official documents and suchlike.

ESA also has legal capacity in accordance with national law: it can acquire property and fulfill any necessary legal acts. At the same time, it possesses immunities from jurisdiction, taxes and other duties imposed by national laws. "Those rules mean that ESA has a classical legal personality which is usually provided for international organizations. There is a personality of international public law, which confers the legal competence to act in accordance with the framework of the law of nations and it also possesses the legal competence to act in accordance with the national legal systems of its Member States when it is acting on their territory."²²

²⁰ See, H. Kaltenecker, "The European Space Agency (ESA)," in N. Jasentuliyana and R.S.K. Lee (eds.), *Manual of Space Law* (1979), at 427.

²¹ E.R.C. van Bogaert, Aspects of Space Law (1986), at 270.

²² *Id.* at 271.

While the ESA Convention affirms legal personality of the Agency in Article XV, it was deemed necessary to specify that the Agency be empowered to "cooperate with other international organizations and institutions and with Governments, organizations and institutions of non-member States, and conclude agreements with them to that effect." "While it remains debatable whether the wide and fragmented body of agreements and legal obligations regulating the relations between ESA and its member countries, as well as the host of agreements concluded between ESA and many governments and governmental space agencies, can be characterized as 'space law', they must certainly be considered as an important contribution to creating a stable and transparent legal framework for many types of space operations."²³

Overall, there is no doubt that ESA possesses all four criteria characteristic for an entity with international legal personality, as defined in Chapter 1: it is an association of States with lawful objectives that has two permanent organs performing functions on behalf of and in the interest of ESA, it has distinct purposes enumerated in Article II of the ESA Convention, and it has legal powers exercisable on the international plane, for example, the right to conclude international agreements in the course of international cooperation.

11.2.4 Term of Existence

ESA has been created for an indefinite period of time. Article XXV of the Convention, however, provides for conditions of the Agency's dissolution: if the number of members becomes less than five or upon agreement between members, and sets out the procedure of dissolution. That by no means signals a temporary character of work, but rather indicates forethought of the Convention's draftsmen and prudent care of the founding States in establishing a procedure allowing meeting financial obligations of the Agency in case of dissolution, which given its area of work might be quite substantial. The ESA's predecessors were also created for an indefinite period, but their failures in delivering results prompted member-States to terminate them after merely a decade. So the dissolution scenario was not all that unrealistic at the time of Convention's drafting.

²³ P. Jankowitsch, "The Background and History of Space Law," in F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 22.

11.2.5 Binding Force of Documents Produced

ESA is mandated to adopt both legally binding and non-binding decisions. Article I, for example, states that members *shall* participate in mandatory programs and *shall* contribute to the fixed common costs of the Agency. Article II, by contrast, clearly stipulates that ESA is entitled to merely recommend a coherent industrial policy to its members.

It should be noted that decisions adopted regarding implementation of optional programs, which will be explored in detail below, are legally binding, but only on States participating in these programs. In order to enjoy an exemption from these decisions, a State has to formally register its disinterest in an optional program.

Article XVIII affirms that non-fulfillment of obligations under the Convention will lead to termination of the violator's membership upon approval of the two-thirds of the Council, thereby providing a mechanism for enforcement of its decisions. By and large, obligations set out *in* the Convention and *under* the Convention are to be complied with under the penalty of expulsion from the organization, confirming existence of certain legal obligations binding ESA member-States.

11.2.6 Existence of Opportunity to Modify Obligations

In the absence of specific provisions in the Convention, it can be concluded that apparently members cannot modify obligations stemming from decisions adopted by the Council, with the noted above exception regarding optional programs.

As for modification of the Convention itself, Article XV establishes two separate amendment procedures: one for the Convention and Annex I, and the other for all other Annexes. Amendments to the Convention and Annex I may be recommended by the Council or proposed by any Member State by way of notification of the Director General. All amendments, whether recommended by the Council or proposed by a Member State, are discussed and approved by the Council. These amendments enter into force, however, only once the Government of France receives the notification of acceptance from all Member States. This procedure effectively precludes a possibility of existence of different sets of obligations for different groups of States: either each member is bound by the amended Convention, or no member is bound by the amended Convention. The second amendment procedure set forth by Article XV allows amendment of any Annex, except for Annex I, by a unanimous vote of the Council, provided that such amendments do not conflict with the Convention. For such amendments to come into force, there is no requirement for the deposition of the notice of acceptance with the Government of France. The unanimous vote required in the Council to adopt the amendment, though, already serves as an adequate indication of the concurring will of all Member States.

Finally, the Convention is silent on the matter of reservations, so provisions of Article 20 of the Vienna Convention on the Law of Treaties apply. As discussed in Chapter 1, however, these provisions are vague and indeterminate, and heavily rely on the notion of 'object and purpose', which also can hardly be explained in definite terms. No reservations have been filed so far, and it might be presumed that no reservations are permitted to the Convention and the Annexes. That is so for two reasons: first, probably the 'object and purpose' of close regional cooperation do not presuppose the possibility of unilateral digressions from the provisions of the Convention, and second, the fact that every amendment requires unanimity contrary to the general rule of a majority support serves as additional evidence of the intent to prevent modification of the Convention absent a unanimous support.

11.3 Evaluation and Conclusions

To summarize, ESA is a permanently functioning international organization open to States, possessing international legal personality and an internationally operating secretariat, mandated to adopt both legally binding and non-binding decisions. Shortly after the establishment, ESA was regarded as a new road for Europe's space policy.²⁴ It was created as a European intergovernmental organization, founded to provide a forum for European cooperation in space.

Authors have opined that the Agency is probably one of the most open space organizations, one in which the users and the members are continuously informed, "one they can check carefully, if they wish, to make sure their desires are properly implemented, the missions

²⁴ E.R.C. van Bogaert, Aspects of Space Law (1986), at 267.

properly managed, and their financial contributions properly used."²⁵ In line with the organizational transparency and accountability, ESA is mandated to perform broad, strategically important functions, including elaboration and implementation of a long-term European space policy, recommendation of space objectives to the member States, elaboration and implementation of the industrial policy, and recommendation of a coherent industrial policy to its member States.²⁶

Three additional features enhance the institutional structure of a classic international organization in the case of ESA: the mandatory-optional programs dichotomy, the principle of geographic return and the principle of internationalization of new space programs. Although these features first and foremost affect the Agency's internal relations and policies, they necessarily affect the institutional structure of cooperation and should be properly addressed.

11.3.1 Distinctive Features

Having covered basic institutional characteristics of ESA, there are three additional features that have to be reviewed in the course of the present analysis. These characteristics are unique to the Agency; they constitute the foundation of its operations and of its relations with member-States. At the same time, these features significantly affect the institutional structure of ESA. The mandatory-optional programs dichotomy, the principle of geographic return and internationalization of new space programs will be analyzed in the light of their importance for the institutional structure and operation of the European Space Agency.

The ESA industrial policy is the cornerstone of both the mandatory-optional programs dichotomy and the unique principle of geographic return, also called fair return. ESA has a flexible and effective industrial policy based on cost-efficiency, competitiveness, fair distribution of activities and competitive bidding, which secures adequate industrial capacities, global competitiveness and a high degree of inner-European competition for efficient European cooperation in joint space projects, thus providing the basis for the successful development of

²⁵ R.M. Bonnet and V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 24.

²⁶ See, K. Kunzman, J. Neumann and T. Reuter, "Session 3: Current and Future Relationship of ESA and EU. Introduction by Rapporteurs," in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 167.

space in Europe.²⁷ It has been noted that the place of the industrial policy as a uniting element between the geographic return principle and the mandatory-optional programs dichotomy, and its importance for international cooperative endeavors of ESA allowed Europe to gain a forty percent share of the global heavy lift launcher and satellite market, proving that the European space industry is highly competitive and efficient.²⁸

1.3.1.1 Mandatory-Optional Programs Dichotomy

Strictly speaking, the ESA Convention established not two, but three types of programs: mandatory, optional and operational. Operational activities basically concern services on behalf of others: placing ESA facilities at a user's disposal, ensuring the launching, placing in orbit and controlling of operational satellites of a user, or carrying out any other activities as requested by a user.²⁹ They are to be carried out in accordance with conditions as defined by the Council. Upon acceptance by the Council, the Agency shall place at the disposal of the operating agencies its own facilities as far as they may be of use, and the costs shall be borne by the users.³⁰ These activities are rather specific and are carried out under special circumstances upon request of the interested user; in effect, they are concerned with providing space-related services to 'customers'. In this regard, operational activities are substantially different from the first two categories of ESA activities, and therefore should not be analyzed on the same footing as the first two. Whereas the first two types of activities include programs fulfilled by members of the Agency for their own benefit and on their own behalf, the last one includes a third party as an activity's beneficiary. Therefore, acknowledging existence of the third type of activities, the analysis will focus on the first two types.

Historically, the concept of mandatory-optional programs dichotomy originates from a similar concept employed in the European Space Research Organization.³¹ That, however, has

²⁷ Resolution of the 4th Space Council accompanying the adoption of the European Space Policy, Brussels, 22 May 2007.

²⁸ See, B. Schmidt-Tedd, "The Geographical Return Principle and its Future within the European Space Policy," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 87-88.

²⁹ See, F. von der Dunk, "Perspectives for a Harmonized Industrial Policy of ESA and the EU," in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 182-83.

³⁰ See, E.R.C. van Bogaert, Aspects of Space Law (1986), at 269-70.

³¹ See, F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 210.

not prevented the first endeavor toward European space cooperation from failure. The unsuccessful attempt to divide the responsibilities of scientific research and establishment of launching capacities between the European Launchers Development Organization and the European Space Research Organization, in the end, led to significant difficulties in implementation of applications satellite projects, the Ariane launcher and the Spacelab development programs. The decision was made to amalgamate the two organizations. The two, notably, had different memberships; the former, for example, included Australia as its member. The mandatory-optional programs dichotomy was applied to the new organization as a whole, since it had become even more relevant now that States with varying interests were members of a single organization created to manage both scientific research and launch programs.³²

In the ESA Convention account has been taken of the complexity of space activities and the different interests of States in space matters, and so the mandatory-optional programs distinction in its modern version came to life.³³ "In Resolution No. 4 of the Final Act,³⁴ the member States recommended that it should be ensured that the Agency undertakes enough optional programs to guarantee its viability, and that each of these programs is financed by the greatest possible number of member States."³⁵ The ESA Council at its session in May 1976 underlined that it was essential that research and development efforts by governments should be followed by the setting-up of operational applications systems.³⁶ As practice has shown, ESA proved itself to be a highly qualified entity to manage and operate highly complex projects.

Mandatory activities in which all member-States must participate include education, documentation, studies of projects and technological research. They also cover collection of relevant information and its dissemination to member-States, assistance and advice for harmonizing national and international programs and elaboration and execution of scientific programs including satellites and other space systems. The Council approves these programs with a simple majority, and determines by a unanimous decision the level of resources to be made available. All member-States then contribute in accordance with the scale adopted by the Council, which is based on the average national income of each member calculated within a three-year period. The compulsory nature of funding coupled with the objective evidence-based

³² *Id.* at 211.

³³ See, H. Kaltenecker, *The New European Space Agency*, 5 J. Space L. 37 (1977), at 40.

³⁴ ESA Final Act 1975, Resolution No. 4, UKTS, No. 30 (1981), Cmnd. 8200.

³⁵ R.F. von Preuschen, *The European Space Agency*, 27 Int'l & Comp. L. Q. 46 (1978), at 54.

³⁶ *Id.* at 56.

allocation of contributions shield mandatory programs from unwarranted national pressures, and no individual nation can use the leverage of its financial contribution or of its membership in the program to further its own preferences.³⁷

Optional activities include design, development, construction, launching, placing in orbit and control of satellites and all similar activities for launching facilities or space transport systems. "Here, a major portion of the actual work (in particular for the earth-based design, development and construction stages) is contracted out to the industries of (mainly) the member states."³⁸ Member-States may agree to execute such optional programs and they have to submit a completely detailed survey for the approval of the Council.³⁹ For the State to register its unwillingness to participate in the optional program, it has to formally declare itself not interested. In other words, the Convention adopts the 'opt-out' principle, not the 'opt-in' approach requiring each interested State to sign up. So the default rule is the unanimous participation in both types of activities, whereas deviation is permitted only as applied to the optional programs, which should be formally communicated.

"This "á la carte" concept on which the optional activities are based makes possible the execution of programs also in cases where there are only a small number of interested member States."⁴⁰ Therefore, in principle as few as two or three States may still be capable of jointly developing and implementing a project, and should they consider it desirable, it would have been only illogical and counterproductive to prevent them from pursuing the project. In the end, in the light of Article III provisions requiring States to exchange scientific and technical information, such a project would prove beneficial for all ESA members and the European space industry in general.

At this point it is worthwhile to briefly address the financial side of ESA operations. Article XIII and Annex II set forth financial provisions and fix the structure of members' financial contributions. Overall, three sets of budgets should be prepared by the Director General and submitted to the Council for approval: a general budget for mandatory activities, a general budget for common costs of the Agency and budgets for optional programs. Hence, mandatory activities are all covered by a single budget, whereas each optional program has its own budget.

³⁷ See, R.M. Bonnet and V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 28.

³⁸ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 216. ³⁹ *Id*.

⁴⁰ R.F. von Preuschen, *The European Space Agency*, 27 Int'l & Comp. L. Q. 46 (1978), at 54.

This scheme provides for fair allocation of financial contributions among member-States depending on their participation in optional programs, and ensures that financial burden of optional programs is not redistributed using blanket leveling.

It has been noted that the optional activities are the reason why the industrial policy of ESA achieves its major impact.⁴¹ Overall, "the combination of mandatory and optional programs within one international intergovernmental institution makes for uniquely flexible framework accommodating the interests of individual states while maintaining a coherent and efficient manageable program, in short balancing the sovereign discretion of member states to spend resources on space programs and the fundamental need to cooperate in that respect."⁴²

1.3.1.2 Principle of Geographic Return

The principle of geographic return is inextricably connected with ESA optional programs, providing an additional incentive for States to participate in them. It has been shown above that from the first days optional programs were deemed highly important for the Agency's success, so the principle of geographic return is correspondingly an essential element of ESA functioning. But the principle is also a foundation of the whole system of European space cooperation, which created a favorable atmosphere for participation in space activities; more so, it created a favorable atmosphere for active participation, for an increasing number and complexity of programs developed and fulfilled by ESA with a stable support of its member-States. Despite the justified critique of the principle as incompatible with the European Union competition rules,⁴³ it has been in place for four decades and has demonstrated its effectiveness. There is hardly a competition-rules-compatible alternative of comparable effectiveness; hence, it is likely to stay for the years to come.

Development of the European space sector, beginning with the establishment of national space policies and culminating in the creation of ESA, was driven by science: "The creation of an industrial base for European engagement in space played an important role in this context. As

⁴¹ See, F. von der Dunk, "Perspectives for a Harmonized Industrial Policy of ESA and the EU", in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 183.

⁴² F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 218-19.

⁴³ See, A. Froehlich, "European Space Agency and European Commission: Recent Rules for the European Sector," in *Proceedings of the International Institute of Space Law 2013* (2014), at 651.

a consequence, industrial policy for space – epitomized in the famous '*juste retour*' – became one of the key elements in the founding document of ESA in 1974."⁴⁴

Annex V elaborates the principles of ESA's industrial policy established in Article VII of the Convention. By and large, the principle of fair return, or geographic distribution, is based on the requirement to give preference to industry and organizations of member-States and organizations of participating member-States in the context of optional programs when placing all contracts. "This principle is considered so important that derogation of it is only allowed by decision of the ESA Council, the highest organ of the organization."⁴⁵ While the ideal return coefficient is set at 1, the Convention leaves a certain degree of discretion to the Council, which can apply weighting factors to the value of contracts when calculating the return.⁴⁶ The principle of *juste retour*, therefore, should not be viewed as only a purely financial incentive toward active participation in ESA programs, but it also turns on industrial policy. Industrial policy aims to 'return' technological advances to participating nations. Under the policy, as implemented, advanced technology will carry more 'weight' than less advanced ones, thus affecting the actual return coefficient to member-States as reviewed by the Council once in three years.⁴⁷

Despite the quite ambitious target of one-to-one return coefficient established in the Convention, the target coefficient of 0,8 has been set as the lowest threshold. Under the 2004 'procurement and return rules' a flexible, and more importantly easily adaptable, system was adopted. It allows member-States to agree on the average target coefficient, which is normally about 0,9, and allows designating programs where the lowest coefficient of 0,8 should be applied.⁴⁸ Considering the extensive planning and constant monitoring required by the Convention, the fluctuating target coefficient ensures that, on the one hand, the States are not deprived of the promised reinvestment in their economy, but on the other, the actual percentage of return can be adjusted depending on the program's performance or overall economic situation.

⁴⁴ K.-U. Schrogl and C. Venet, "The Impact of the European Space Policy on Space Commerce," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 7-8.

⁴⁵ F. von der Dunk, "Perspectives for a Harmonized Industrial Policy of ESA and the EU," in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century*, (2006), at 184.

⁴⁶ For more information *see*, R.M. Bonnet and V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 49-53 ("For instance, mechanical ground support equipment is weighted 50 percent, while launch services, although representing a considerable part of the project cost, are weighted only 25 percent. The non-weighted part lies between 50 percent and 80 percent of all industrial contracts.").

⁴⁷ Cf., I. Petrou, The European Space Agency's Procurement System: A Critical Assessment, 37 Pub. Cont. L.J. 141 (2007-2008), at 149.

⁴⁸ See, M. Cogen, An Introduction to European Intergovernmental Organizations (2015), at 221.

"The "fair return" principle was hailed by all concerned as a very intelligent device to entice ESA member states to implement whatever industrial policies they might develop as much as possible through the common framework offered by ESA, rather then acting alone, or taking a multilateral but *ad hoc* approach."⁴⁹ The predictability of the way the return will be calculated prompts States to assess prospects of such a return before signing up for a new optional activity and before agreeing on the corresponding financial contribution. The ability to compute the program's 'business case' probably is another feature motivating member-States to participate in optional programs, which in 2011 represented sixty percent of the total costs.⁵⁰

Despite the notable benefits of the geographic return principle as applied in ESA and the prominent role it has been playing in advancement of the European space sector, there is a substantial amount of criticism as well. On the one hand, it is suggested that exaggerated expectations of a hundred percent return per program thwart the positive effect of the principle by way of inducing unrealistic financial assumptions of national industries and overshadowing the paramount goal of creating a valid technical and scientific basis.⁵¹ Authors further noted that the ESA industrial policy, including the principle of geographic return, serves the frequently divergent industrial, technological and often political interests of member-States, but at the same time attempts to comply with traditional procurement objectives such as competition and cost-effectiveness.⁵² In other words, "the Agency constantly has to maintain a proper balance between industrial policy objectives and more traditional procurement goals, which, in combination might well prove to be the correct approach in line with the mandate given to it by its member states."⁵³

Thus, the political influence is one source of inadequacies stemming for the principle, and it should be reduced to an adequate level.⁵⁴ At the same time, it is almost undisputable that the principle of fair return reduces competition, increases costs, amounts to inflexibility in

⁴⁹ F. von der Dunk, "Perspectives for a Harmonized Industrial Policy of ESA and the EU," in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 184.

⁵⁰ Cf., M. Cogen, An Introduction to European Intergovernmental Organizations (2015), at 222.

⁵¹ *Cf.*, B. Schmidt-Tedd, "The Geographical Return Principle and its Future within the European Space Policy," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 89.

⁵² Cf., R.M. Bonnet and V. Manno, International Cooperation in Space: The Example of the European Space Agency (1994), at 50.

⁵³ I. Petrou, *The European Space Agency's Procurement System: A Critical Assessment*, 37 Pub. Cont. L.J. 141 (2007-2008), at 177.

⁵⁴ *Cf.*, B. Schmidt-Tedd, "The Geographical Return Principle and its Future within the European Space Policy," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 89.

procurement and impedes the obtainment of best value.⁵⁵ Nevertheless, this "may well be a price worth paying to allow Europe to undertake missions of a unique scope and character, with a prominent place among all the space projects undertaken around the world."⁵⁶ What is more, this principle spurs active involvement and cooperation of scientists, and promotes integration of a large number of industrial companies in the development of space projects, becoming an important element in the overall effort of European integration, making the space industry one of the sectors where a true 'European spirit' prevails.⁵⁷

1.3.1.3 Principle of Internationalization

The third feature crafting the institutional structure of ESA is the principles of internalization of new space programs. The ESA Convention has been characterized as having an overarching integrationist and rationalizing mission at the levels of European space policy-making, programs and infrastructure.⁵⁸ With this characteristic in mind, the internationalization as established by Article V and elaborated in Annex IV seems a logical addition to the ESA mechanism of cooperation. The Agency was created as a vehicle capable of developing and implementing a united European space strategy, thereby, at the outset programming member-States for an in-depth cooperation on several levels, from strategic planning to projects fulfillment. But most importantly, ESA was created as an organization that would allow Europe to work on a par with main spacefaring nations, and that would unite efforts of European nations in delivering a world-class leading space industry to the region. So the principle of internationalization of new space projects within the region was at the genesis of the Agency, and not surprisingly it found its way to the Convention.

"In general, either individual member states 'offer' programs to ESA for 'Europeanization' thereof, meaning they invite other ESA members through the ESA mechanisms to join such a program, or the Director General as supported by his staff can

⁵⁵ See, I. Petrou, *The European Space Agency's Procurement System: A Critical Assessment*, 37 Pub. Cont. L.J. 141 (2007-2008), at 174.

⁵⁶ R.M. Bonnet and V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 57.

⁵⁷ *Id.* at 56.

⁵⁸ See, K. Madders, A New Force at a New Frontier: Europe's Development in the Space Field in the Light of Its Main Actors, Policies, Law and Activities from Its Beginnings Up to the Present (2006), at 214.

propose programs to be adopted as such by the Council."⁵⁹ Annex IV designated 'Internationalization of National Programs' requires national programs of member-States to be made available for participation of other members within the framework of the Agency, if the program is intended to be undertaken either alone or in collaboration with another member-States. In principle, this obligation also extends to such bilateral and multilateral space projects, which members may undertake with non-member States.⁶⁰ Collaboration within this framework should be commenced at a relatively early stage, when modifications of the project necessary to accommodate a larger number of participants are still possible, so should be made before the project definition stage.

The principle of internationalization effectively obliges member-States to make certain cooperative efforts, but does not go as far as to mandate international cooperation by way of imposing the 'obligation of result', notwithstanding its establishment within the tight framework of international regional cooperation. Particularly, Article I (c) of the Annex states that the initiating member shall explain the arrangements proposed for technical management, and Article I (d) stipulates that the initiating member shall use its best efforts to accommodate all reasonable responses and, subject to agreement being reached, within the time scale demanded by project decisions, and within the appropriate level of cost. In the end, the initiating State retains significant flexibility and control over its project and is apparently entitled to reject proposals of cooperation within the described framework should the proposed agreement not meet the objectives, timeframe, spending caps, technical requirements or presumably other relevant requirements – as per wording of the 'best effort' consideration – it envisioned for the project.

Overall, the 'obligation of result' dimension of the principle of cooperation is nonexistent even within the ESA framework, the system that boasts an unprecedented level of intergovernmental cooperation in exploration and use of outer space. Nevertheless, the principle of internationalization is a notable feature of ESA ensuring that intra-region cooperation is given the utmost priority, and securing close relations between ESA member-States in their pursuit of common European space strategy.

⁵⁹ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 214-15.

⁶⁰ See, R.F. von Preuschen, The European Space Agency, 27 Int'l & Comp. L. Q. 46 (1978), at 49.

11.3.2 Relations with the European Union

It should be reminded that ESA is not a part of and is not subordinate to the European Union. Furthermore, not all members of ESA are members of the European Union, just as not all members of the European Union are members of ESA, but they all belong to one geographical region of Europe. ESA, at the same time, has proclaimed "itself proudly to be and regarded as a participant in the political efforts to forge a united Europe."⁶¹ Recalling the ESA Convention preamble manifesting the desire "to establish a single European space organization," and noting the internationalization principle, cooperation between the European Union as the regional integration, partly supranational organization and ESA as the regional international organization striving to develop and implement a united European space program, cannot be avoided.

Only the recent developments, however, have prompted intensifying discussions as to proper and effective ways and means of cooperation between the two organizations. "The European Space Policy made substantive progress during the last decade with ESA and the EU as independent actors – and by involving new partners. On the implementing side, there are still a number of open issues, a result of the different characters of those institutions. ESA represents a form of intergovernmental cooperation and a specific industrial policy."⁶² The greater the involvement of the European Union in space activities will be, the more acute the issue will become.

ESA and the European Union have been in close collaboration for at least a decade now, since the conclusion of the Framework Agreement between ESA and the European Commission, which entered into force on May 28, 2004.⁶³ The Agreement formalized cooperation committing the parties to working together and enumerated five institutional models to facilitate the cooperation, which are without prejudice to other models agreed upon by the parties. Cooperating efforts can address any field of space activities – science, technology, earth observation, navigation, satellite communications and the like, and joint initiatives can be structured in various manners: ESA managing a project for the Union, the Union participating in

⁶¹ S.E. Zabusky, "Ethnography in/of Transnational Process: Following Gyres in the Worlds of Big Science and European Integration," in C.J. Greenhouse et al. (eds.), *Ethnography in Instable Places; Everyday Lives in Context of Dramatic Political Change* (2002), at 123.

⁶² B. Schmidt-Tedd, "The Relationship between the EU and ESA within the Framework of European Space Policy and its Consequences for Space Industry Contracts," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 27.

⁶³ Framework Agreement between the European Community and the European Space Agency, signed November 25, 2003, entered into force May 28, 2004. L261, 06/08/2004, at 64.

ESA optional programs, by way of jointly coordinated and funded activities or even by way of creation of joint subsidiary bodies. In the end, *ad hoc* arrangements are required for every joint cooperative program.⁶⁴

The Agreement also created the European Space Council charged with development of the European space policy. "The Space Council should consist of regular joint and concomitant meetings of the ESA and EU Council and provide guidelines and orientations for the cooperation between the two organizations. The first Space Council was held on 25 November 2004, and paved the way for the adoption of a European Space Programme in late 2005."⁶⁵ Outlining institutional relationship between ESA and the European Union, the European Space Policy conferred upon ESA the role of the European Commission's technical expert and the procurement agent for its projects; and such functional division was confirmed in the 2007 prolongation of the Framework Agreement. So despite the ongoing discussions about further integration of the two organizations with their specific tasks.⁶⁶

The 2009 Lisbon Treaty, being a watershed agreement for the European Union, has not substantially affected relations between the European Union and ESA. Article 189 of the Lisbon Treaty recognizes ESA as an organization with its own mandate in the sphere of intergovernmental cooperation. Therefore, despite the partly supranational character of the Union and its expanded powers as per the Lisbon Treaty provisions, there is still no hierarchy between the two organizations.⁶⁷ And the Framework Agreement continues to be the legal basis for cooperation, preserving an unmistakable distinction between them.

Scholars have opined that four sectors are particularly promising as potential markets of the global, read combining the European Union and ESA, European space strategy. These are satellite navigation, telecommunication applications, earth observation and space launchers.⁶⁸

⁶⁵ K. Kunzman, J. Neumann and T. Reuter, "Session 3: Current and Future Relationship of ESA and EU. Introduction by Rapporteurs", in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 172.

⁶⁶ See, B. Schmidt-Tedd, "The Relationship between the EU and ESA within the Framework of European Space Policy and its Consequences for Space Industry Contracts," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 27.
 ⁶⁷ Id. at 29.

⁶⁴ See, F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 253.

⁶⁸ See, K.-U. Schrogl and C. Venet, "The Impact of the European Space Policy on Space Commerce," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 13.

The most prominent examples of these areas are: Galileo and GMES; development of satellite communications, particularly to provide communications services in rural areas by way of issuing a 18-year license to Inmarsat and Solaris Mobile; creation of a competitive launcher family composed of three complimentary launch systems; and finally creation of prizes and networks to foster innovation primarily in the private sector.⁶⁹ This group of activities signifies that, first, space activities have already become a major commercial market in Europe, second, that space technology is essential for further economic development of the region, and third, that encouraging private sector's initiatives in the space area is beneficial for the technology development, which in turn benefits both private sector and the economy in general.

"As outer space and space activities also in the European context increasingly became a key area for technological development, as well as for strategic geopolitical positioning, the European Union became more and more concerned that clear space policies and a clear overarching legal framework for *all* space activities were necessary, and should be realized at least partially at a European, read EU level."⁷⁰ This, however, has not been done yet. More so, it is not at all obvious how such merger, or acquisition, should the European Union overtake the ESA's functions, be done from a legal point of view due to significant discrepancies of the policies utilized in the two organizations. "One crucial point for the sometimes difficult cooperation and interaction between the EU and ESA is the partly divergent industrial policy between ESA, as a primary research and technology organization, and the EU as a regional integration organization with major economic goals. This leads to concrete questions of governance, project-financing and procurement."⁷¹ For example, the Commission has repeatedly made it clear that the principle of geographic return should not be applied to projects financed at least in part by the Commission, such as Galileo or GMES.⁷²

Recalling that the fair return principle is at the core of the ESA industrial policy and has a sweeping effect on the institutional mechanism of cooperation as well, nowadays the possibility of an all-European space policy is subject to further debate. The principle of geographic return,

⁶⁹ Id.

⁷⁰ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 251. ⁷¹ B. Schmidt-Tedd, "The Relationship between the EU and ESA within the Framework of European Space Policy and its Consequences for Space Industry Contracts," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 30.

⁷² See, F. von der Dunk, "Perspectives for a Harmonized Industrial Policy of ESA and the EU," in S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl (eds.), '*Project 2001 Plus' – Global and European Challenges for Air and Space Law at the Edge of the 21st Century* (2006), at 185.

as has been discussed above, is more than a plain financial incentive; it also stimulates technological and technical innovations; and more broadly, it supports the important role played by the optional programs in ESA and the European space sector in general. Add to this policy incongruity between the membership in the two organizations and the prohibition of international organizations' membership in ESA, and a legal conundrum of modern days arises.

Despite the impressive success and development of European space commerce, currently there are four major obstacles to amalgamation of ESA and European Union activities: the need to find an adequate institutional framework for cooperation between the main actors of the European Space Policy – ESA and the European Commission; the need to reconcile commercial and societal aspects of space; the need for harmonization of legislation concerning liability for commercial space activities at the European level to guarantee a level playing field; and the need to ensure that space industry and space applications markets benefit all European countries and not only those, as Germany and France, that have a long-lasting tradition in space and therefore have a dense network of large and smaller space companies.⁷³ None of these four obstacles can be overcome unilaterally by either the European Union, or ESA. The analysis of the possible ways of reconciling EU-ESA differences and merging their efforts toward a uniform European space policy – should that eventually be deemed advantageous for the region – should however, be left to further elaboration at a more appropriate time and place.

11.3.3 ESA Example: A One-Time Success or a Model?

Scholars are fairly unanimous in the opinion that institutionalization of the European space sector was driven by the understanding that European countries taken separately were a size too small to secure an autonomous and self-defined European role in international space cooperation. The ESA Convention explains that efficiency of European space efforts can be increased through a European space organization; and the main purpose of the new organization was defined as promotion of cooperation among the European States in space research and technology and their space applications. Hence, increasing efficiency of the European space efforts through international cooperation is the overarching purpose of ESA. This purpose is envisioned as being achieved by elaborating and implementing a long-term European space

⁷³ See, K.-U. Schrogl and C. Venet, "The Impact of the European Space Policy on Space Commerce," in L.J. Smith and I. Baumann (eds.), *Contracting for Space: Contract Practice in the European Space Sector* (2011), at 19-20.

policy and by concerting policies of the members, by elaborating and implementing activities in space field, by coordinating the European and national space programs through progressive integration, and by elaborating and implementing the industrial policy for collective and national space programs.

Undoubtedly, ESA has achieved noteworthy results in fostering space cooperation in Europe, creating a European space market and elevating Europe to become one of the major and most influential players in exploration and use of outer space. Not all proclaimed goals, however, have been achieved in full. Although the Agency's membership has grown from ten member-States in 1975 to twenty-two members after the most recent Hungary's accession to ESA on February 24, 2015, it is still eight members shy to include all members of the European Union, and twenty-five members⁷⁴ shy of including all European countries. This, however, should not be considered an Agency weakness: blanket inclusion of all European States based only on the principle of regional affiliation would not have enhanced the quality of ESA performance since space activities require a certain level of technological and economic sophistication. This observation leads to a discussion of the type of ESA regionalism, and its role in the Agency's success.

There is little doubt that "regional organizations fulfill a significant role in the present international community."⁷⁵ And though some authors have expressed concerns about possible substitution of general international law by regional international law as a result of a growing number and influence of regional cooperative endeavors,⁷⁶ the business of regional cooperation is tricky and somewhat confusing. Not every region possessing geographical, cultural and economic proximity is capable of creating and maintaining a successful international regional organization. And not every international regional organization created in the furtherance of regional similarities or homogeneity proves to be a successful tool of regional cooperation.

International regional cooperation in general, and of course regionalism in exploration and use of outer space is a rather recent phenomenon in the evolution of the community of States. Regionalism may be defined as cooperation among States of a specific area or a group of States with the same political identity.⁷⁷ A more comprehensive list of reasons behind

⁷⁴ The Council of Europe currently has 47 member-States. .

⁷⁵ E.R.C. van Bogaert, Aspects of Space Law (1986), at 265-66.

⁷⁶ See, H. van Panhyus, Regional or General International Law: Misleading Dilemma, N.I.L.R. (1961), at 157.

⁷⁷ See, E.R.C. van Bogaert, Aspects of Space Law (1986), at 264.

regionalism may be suggested: in addition to geographical and political closeness, social and cultural homogeneity, similar attitudes or external behavior, political and economic interdependence may be an impetus for regional cooperation.⁷⁸ Integration based principally on geographical proximity is the most obvious, but not always the most advantageous way to promote cooperation. The territory-based regionalism can be described as a compromise: it is that single space which has been judged suitable for the attainment of a range of tasks, and it may be more or less appropriate for any one of them.⁷⁹ Performance of individual or highly specialized tasks, the category space cooperation falls into, may not necessarily be best achieved through regionalism based on geographical proximity. Nowadays, thus, regionalism is still premised on territorial closeness, but there is more to it, so the term should not be understood literally.

Historically, regionalism in the sense of seeking a single space in order to facilitate the performance of a range of interrelated functions has been encouraged by three categories of motives. The first motive is the appearance of a regional sentiment without more. The second option is the belief that a union would be desirable in fulfillment of a grand, often politics-related enterprise, as was the case with the Founding Fathers in the United States. Finally, regionalization may also result from continuous demonstration of specific benefits resulting from intensification, and at the same time demonstration of increasing costs of working individually or in cooperation with a few economically close partners.⁸⁰

The first motivation is hardly a viable basis for cooperation in the modern interconnected world, though regional sentiments are unquestionably a part of most regional organizations. The second motive is both a heritage of the long gone days, and is probably one of the subsidiary motivations behind the European Union, a contemporary grand political (and surely legal) enterprise. The third motive is the one underpinning creation of the European Space Agency. In the words of a Soviet scholar, "results of international cooperation [within the ESA predecessors] turned out to be utterly disappointing. Antagonistic differences characteristic for imperialistic integration, showed up with all clarity in efforts to develop a unified policy of West-European

⁷⁸ See, Russet B.M. International Regions and the International System: A Study in Political Ecology, (1967), at 11, cited in C. Archer, International Organizations (1992), at 47.

 ⁷⁹ Cf., P. Taylor, International Organization in the Modern World (1993), at 7.
 ⁸⁰ Id. at 33.

states in exploration and use of outer space."⁸¹ 'Antagonistic differences', in reality of course, were not the result of 'imperialistic integration', but still required decisive actions. And ESA was precisely that action, which allowed extracting most benefits from cooperation and simultaneously reducing individual costs.

This outcome, however, would not have been possible should the Agency been founded solely on the basis of geographic proximity. Nor would cultural, religious, political or economical closeness taken separately suffice. A more complicated blend of all these factors combined with industrial policy considerations and zeal of each participant in advancing space activities is the recipe of ESA regionalism. Compared to global organizations, regional ones differ in three major ways: they tend to have a strong integrative dynamic deriving from functional linkage between issue areas; estrangement is seen as a major threat to cooperative undertakings; and the reconciliation of collective and national interests strongly favors the former.⁸²

ESA as the regional mechanism of cooperation is, therefore, premised on two elements: (1) regionalism combining geographical proximity and economic, or more precisely sectoral, closeness; and (2) amplified adherence to characteristics specific for regional organizations. The first element signifies the fact that ESA is not a regional organization in the literal sense of the word, but a regional organization based on territorial closeness coupled with meticulous calculation of costs and benefits of addition of a new member to the organization. The second element suggests that ESA regionalism has magnified three characteristics distinguishing global organizations from regional ones, namely a deepened functions-based integrative dynamic, a strive for overall equality of members and a favoritism of collective interests. These general considerations, however, are not enough to explain the great success of the ESA mechanism of cooperation. The general tendency of the European integration originating from the European Coal and Steel Community and the European Economic Community necessarily played its role in bringing members of ESA closer and fostering their collaboration.

Three features of the ESA mechanism of cooperation discussed earlier, namely the mandatory-optional programs dichotomy, the principle of geographic return and that of internationalization, are also pivotal elements of the regionalism exemplified by the Agency. It is

⁸¹ Верещетин В.С. Международное сотрудничество в космосе [*International Cooperation in Outer Space*]. М.: Наука. 1974. С. 70.

⁸² Cf., P. Taylor, International Organization in the Modern World (1993), at 114.

suggested that it is impossible to single out the one leading element in the structure of ESA that has predetermined its effectiveness. More so, all these elements are so closely interconnected that it might also be impossible to discern the one that constitutes the foundation of the system. In other words, the character of ESA regionalism, the high level of European integration in general and the three specific features of ESA cooperation are all links of a single chain, where one cannot tell, which is the first and which is the last one. A high level of integration, for example, is the basis of the internationalization principle, but the existing level of integration, in turn, has become possible only due to a precisely tailored approach to regionalism.

The preceding discussion leads to the conclusion that the ESA institutional structure, created as a classic international organization, has evolved into the unparalleled mechanism of cooperation in exploration and use of outer space as we know it thanks to the multitude of interconnected factors and elements, some of which are unique to the dynamics of the European region development, and others that can in principle be duplicated in different circumstances. The ESA institutional framework "tries to combine different requirements: flexibility in the elaboration of new programs; efficiency in their execution; respect of different interests Member States have in the space field; acceptance of industrial return; sound equilibrium between legislative and executive tasks; and appropriate long term planning."⁸³

All these different requirements can be copied and adapted to a different region, but the outcome would inevitably be a peculiar application of these features to the other region's specific conditions, including the degree of homogeneity and interconnectedness, the degree of economic and technological development, the number of States interested in participation, and many more. It has been suggested that the uniquely flexible framework created by way of the mandatory-optional programs dichotomy has already been copied by EUMETSAT, and "for such reasons is viewed as possibly the most likely trait of the Agency which prospective international space cooperation organizations in other parts of the world would like to copy." ⁸⁴ But it is quite obvious that replicating only this feature is either plainly impossible, or would prove ineffective. After all, how one can guarantee that in the absence of the geographic return principle States would be willing to participate in optional programs twice as actively as in mandatory

⁸³ H. Kaltenecker, The New European Space Agency, 5 J. Space L. 37 (1977), at 43.

⁸⁴ F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), Handbook of Space Law (2014), at 311.

programs?⁸⁵ Hence, additional incentivizing mechanisms would have to be introduced, and that, in turn, would make this theoretical mechanism of cooperation unique in its own right.

Overall, the European Space Agency exemplifies how international regional cooperation in exploration and use of outer space should be structured to achieve outstanding results and be capable of adaptation and enhancement in response to the ever-changing landscape of space activities. "While built on the basic respect for the legal framework existing in space, in particular for the peaceful uses of outer space, it certainly became one of the most influential and most powerful among the new actors, not only in the implementation, but also in the progressive development of new norms governing the cooperation of states as well as non-state actors in space matters."⁸⁶

Regional cooperation is not a substitute for universal cooperation, but neither is universal cooperation a substitute for regional. These two levels of cooperation perform quite distinct functions, with universal cooperation focusing on higher-level regulation and coordination among the majority of States, and regional cooperation capable of achieving more specified goals in a compact region among a limited number of members. One advantage of regional cooperation is that it unites States that are close to each other geographically and often politically, economically and socially, and therefore have a lot in common. This creates a firm foundation success in cooperative practical along with regulatory areas, and ESA is the prominent example of practical success on a regional level. An eloquent and relevant conclusion was made by two European scientists: "As imperfect as it may be, ESA is the only organization that has proven that it is possible for many nations to work and plant together in space activities. It is offered here as an example on which to reflect. ESA managed and succeeded. The proof is there to be seen. The model exists."⁸⁷

⁸⁵ M. Cogen, An Introduction to European Intergovernmental Organizations (2015), at 222. ("In 2011, ESA's mandatory programme activities represented 25 per cent (or $\in 1$ billion) of the total cost, 60 per cent was used in optional programmes (or $\in 2,5$ billion) and 15 per cent on programmes financed by third parties (or $\in 627$ million.") ⁸⁶ P. Jankowitsch, "The Background and History of Space Law," F. G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 22.

⁸⁷ R.M. Bonnet and V. Manno, *International Cooperation in Space: The Example of the European Space Agency* (1994), at 138.

Chapter 12. Commonwealth of Independent States

12.1 Overview

The Commonwealth of Independent States is famously known as a postnuptial result of the former Soviet Union. Quite interestingly, the history of its creation is well known, while only few connoisseurs bear knowledge of what the Commonwealth has achieved during twenty-five years of its existence. Alben W. Barkley, the thirty-fifth Vice President of the United States, a storyteller of great repute, was especially fond of telling about the mother who had two sons. One went to sea; the other became vice president; and neither was heard from again.¹ The Commonwealth seems to be the second son in this story: it had a grandiose beginning, but unfortunately no one ever heard from it ever again.

Despite limited international influence of the Commonwealth from a worldwide perspective, it has achieved certain positive results within the region. It has played a role in smothering several conflicts in the region, eased transition from one State to fifteen independent States, proved to be somewhat useful in dealing with social issues, and allowed mitigating problems of intra-region migration. The space complex was one of many former Soviet Union industries that ended up divided among territories of several sovereign States. Kazakhstan, Russia and Ukraine all inherited parts of the once mammoth Soviet space complex: the Baykonur Cosmodrome is now located in Kazakhstan, the Energiya Company producing engines for space launch vehicles is now under the jurisdiction of Ukraine, while Russia received the rest of space capabilities.²

In this chapter the Commonwealth of Independent States (CIS) mechanism of cooperation in outer space activities will be reviewed. Since the CIS is not a space-specialized entity, first, the overall structure of cooperation within the CIS has to be addressed. The CIS Inter-State Outer Space Council is one of the sixty-nine specialized CIS organs; hence it is necessary to understand the processes, dynamics and institutional issues of the Commonwealth

¹ United States Senate, Alben W. Barkley, 35th Vice President (1949-1953), available at http://www.senate.gov/artandhistory/history/common/generic/VP Alben Barkley.htm.

² For an excellent overview of former Soviet space complex assets allocation between the three countries *see*, Молдабеков Е.М., Винокуров Е.Г. Перспективы сотрудничества стран СНГ в космической отрасли [*Perspectives of Cooperation of the CIS States in Space Area*]. Отраслевой обзор ЕАБР №8, 2010. С. 15-20.

as a whole. Next, the reasons behind the standstill in CIS cooperation will be briefly reviewed and the issues in the space sector caused by the cooperative stagnation will be touched upon. Finally, the chapter will be concluded by remarks about the nature of cooperation within the CIS, about the strengths this union used to have at its inception, and about the ways the issues frustrating CIS cooperation can (or maybe cannot) be mitigated.

On December 8, 1991 in Minsk leaders of Belarus, Russia and Ukraine signed the Declaration by the Heads of States of the Republic of Belarus, the Russian Soviet Federative Socialist Republic and Ukraine that effectively declared independence of these States and dissolution of the Soviet Union, and the Agreement Establishing the Commonwealth of Independent States.³ "In part because of the immediate need to manage the complexities of this vast political divorce process, the leaders of these new states quickly, and with almost no controversy, agreed to the formation of the Commonwealth of Independent States."⁴ These documents were followed by a number of additional documents, including the Alma-Ata Declaration of December 21, 1991, which incorporated the five Central Asian countries, Azerbaijan, Armenia and Moldova, who had not participated in the meeting in Minsk, into the CIS as members of equal standing with the three Slavic countries.

Excerpts from the newspaper articles of that time underline how dramatically different the disagreements on the future of the CIS were. While one article suggested that the CIS "is the final attempt to switch to normal life and join the civilized world," the other insisted that the "relationships taking shape within the Commonwealth have been the source of frustration, rather than inspiration, for people in Europe and worldwide."⁵ But that was even before the Commonwealth actually took shape. Ahead were the drafting of the CIS Charter, establishment of CIS organs and procedures and organization of a meaningful dialogue between leaders of States, most of which had never before been independent.

"Despite the five months of contentious negotiation that had gone into drafting the CIS Charter, its presentation to the of States Summit in Minsk on January 22, 1993, led to further disagreement. Only Kazakhstan and Russia fully supported the draft, while Belarus had

³ Full English texts are available in, Z. Brzezinski, *Russia and the Commonwealth of Independent States: Documents, Data, and Analysis* (1997).

⁴ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 2.

⁵ G. Shipitko, "Commentary: 'Final Attempt' and 'Normal Life'," Izvestiya, 31 December 1991; M. Mayorov, "'Commonwealth of Uncivilized States' Observed," Interfax, 3 January 1992, in Z. Brzezinski, *Russia and the Commonwealth of Independent States: Documents, Data, and Analysis* (1997), at 53-55.

reservations about the collective security provisions, and Uzbekistan objected to inclusion of human rights issues, which it considered to be the internal affair of member states. Ukraine, Moldova, and Turkmenistan refused to sign the charter, while Azerbaijan and Georgia did not even come to the meeting."⁶ The CIS Charter, as it is widely acknowledged even by the advocates of the CIS, is far from perfect due to its vague wording leading to ambiguousness and diminished effectiveness.⁷ Thus, the more troubling was the discord displayed by the leaders of the new States, who used to be colleagues a little over a year earlier.

Not surprisingly, a troublesome process of Charter ratification had followed. "Member states were given a year to ratify the charter, after which it would come into effect in January 1994. Only nine nations did so, including Georgia, which did not ratify the charter until March 1994."⁸ Russian scholars characterized creation of the CIS as a "necessary reality of historical process of collaboration and cooperation of nations of a former totalitarian state, consummated by an attempt to preserve political, economic, cultural and other connections in new organizational and economic-legal realities."⁹ If so, these were harsh realities and not a particularly successful attempt, at least at the initial stages.

The CIS Charter in Article 2 enumerates a long list of the Commonwealth's purposes, including cooperation in various spheres, balanced economic development, guarantee of human rights and liberties, maintenance of international peace and security and others. Article 3 enumerates spheres of cooperative activities, which are to be undertaken on an equitable basis through common coordinating institutions: coordination of foreign policy activities, cooperation in establishment and development of a common economic market, cooperation with regard to customs policy, cooperation in protection of the environment, migration policy cooperation and cooperation in prevention of organized crime. The ambitious purposes and the broad spectrum of cooperative activities required an all-embracing institutional structure.

⁶ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 9.

⁷ *Cf.*, Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009.

⁸ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 9-10.

⁹ Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009. С. 21.

Within the CIS structure there are at least five Councils uniting representatives of member States on the ministerial level. The Council of Heads of States hierarchically is the highest organ in the CIS institutional structure and is empowered to adopt decisions on prominent issues of cooperative activities of the members. Article 14 of the CIS Charter designates the Council of Heads of States as "the supreme body of the Commonwealth for questions concerning defense and protection of external borders of the member states." In accordance with Article 21, the Council shall be comprised of representatives of all member States and shall be convened at least two times a year, permitting convention of extraordinary sessions at the initiative of one of the member States.

The latter provision strikes as the one appropriate for international mechanisms uniting a small number of States and requiring intensive cooperation. For example, consultations within the International Space Station framework can be commenced upon the request of any Partner.¹⁰ The International Convention on Civil Aviation, by contrast, in Article 48 requires a call of the Council or a request of not less than one-fifth of the total number of contracting States for convening an extraordinary meeting of the Assembly. While the CIS membership is not close to that of the International Civil Aviation Organization, the nature of the CIS cooperation and coordination is undoubtedly closer to that of the International Civil Aviation Organization concerned primarily with coordination of national regulations – than to that between the International Space Station Partners, which is centered around management of a particular project. Hence, the conclusion is drawn that initially a profoundly deep level of cooperation between the CIS States was envisioned; it was presumed that the call for an extraordinary session on the highest level by just one State would be enough to prompt other partners to take the call seriously and convene the meeting with full attendance. The history of the CIS meetings, however, even of those dealing with issues of great importance, like adoption of the CIS Charter, and of those called for and organized in advance proved that not all members shared the same sentiment. And so it went.

The Council of Heads of Governments coordinates activities of executive organs of member States in economic, social and other spheres of cooperation. The Council shall hold sessions four times a year, as per provisions of Article 22 of the CIS Charter, and extraordinary

¹⁰ Article 23 of the Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station (1998).

sessions can also be convened upon request of just one member. The decision of the Council of Heads of States of April 2, 1999 delimitated the scope of powers of the two Councils, empowering the Council of Heads of States to adopt decisions on any matters of CIS activities, and tasking the Council of Heads of Governments with coordination of all activities undertaken by executive organs of the member States.¹¹ In other words, no precise delimitation exists, and both Councils have *carte blanche* in choosing matters to be discussed during their meetings. This, however, has not been the reason for the hurdles in achievement of the CIS goals. Even the most vehement supporters of the CIS acknowledge complete absence of a legal regime allowing to control implementation of the adopted decisions and to enforce them.

Several other organs uniting the highest-ranking officials of the member States have been created within the CIS institutional structure: the Council of Ministers of Foreign Affairs, the Council of Ministers of Defense, the Council of Commanding Border Troops, the Inter-Parliamentary Assembly and the Committee on Human Rights. The Economic Court was established in July 1992 to ensure fulfillment of economic commitments made within the CIS framework and to settle economic disputes among member States, but its powers were exclusively consultative and member States generally preferred not to avail themselves of its services.¹² All decisions throughout the CIS structure are to be adopted by consensus.

The CIS established a formal Executive Secretariat in September 1993, with headquarters in Minsk, Belarus. The Committee for Consultation and Coordination was also established in 1993, but was effectively replaced by the Inter-State Economic Committee of the Economic Union in October 1994. In accordance with Article 28 of the CIS Charter, the Committee is a permanently functioning executive and coordinating body charged with execution of decisions of the Council of Heads of States and the Council of Heads of Governments. It is comprised of two representatives of each member and is headed by the Coordinator of the Committee appointed by the Council of Heads of States.

In addition, about seventy specialized organs were set up, most with coordinating functions dealing with particular areas of economic, security, social and cultural cooperation,

¹¹ These and other CIS documents are available on the CIS official website at www.cis.minsk.by.

¹² For example, in 2014 the Court adjudicated 4 cases, three of which were decided in the form of a Consultative Opinion, meaning that these cases in the US doctrine would have been dismissed as moot due to absence of a conflict between the parties. Consultative Opinions concern interpretation of provisions of legal acts and contracts. In 2013 the Court adjudicated 2 cases and both were concluded by Consultative Opinions. As of May 2014, there are no pending cases. For more information see the official website of the CIS Economic Court at http://sudsng.org.

including the Inter-State Outer Space Council. Overall, eighty-four organs have been created to support CIS functioning. Not surprisingly, the CIS is a large employer, providing the payroll for over two thousand employees.

Initially, the large institutional structure of the CIS was not supported by the unified financing system. The Charter does not provide for 'the Budget of the Commonwealth'. Article 38 explains that each body of the Commonwealth has a separate budget, which shall be approved by the Council of Heads of States upon a submission from the Council of Heads of Governments. Members' contributions are to be determined "on the basis of the participatory share" and shall be established "in accordance with special agreements on budgets." This ambiguous wording effectively means that no pre-determined methodology for contributions calculation exists, leaving open a possibility for re-negotiation of the State's share every year, in turn meaning that Russia is almost the sole sponsor of the grand CIS institutional machine.

The decision of the Council of Heads of States of June 20, 2000 established the uniform budget of the CIS organs, which is financed from budgets of CIS member States.¹³ This, however, has not altered the mechanism of financial contributions' allocation or changed the preeminent role of Russia in the CIS financing. For example, in the period of 2012-2015 the Republic of Belarus share in the CIS uniform budget was established at the level of 3,1 percent.¹⁴ Ukraine has ceased to pay its contributions to the CIS budget since 2014. Contributions of the two largest, apart from Russia, CIS countries amounting to merely 3,1 percent of the overall budget, however, has not led to disruption of the CIS functioning, and has been used by Russian officials only to chide Ukraine's irresponsibility with regard to its international obligations.¹⁵

Thus, the CIS boasts an extensive institutional structure, but that has not prevented scholars from concluding that "the institutional design of the CIS was in conflict with the goals

¹³ Решение о Положении о едином бюджете органов СНГ, финансируемых за счет бюджетных средств государств – участников Содружества Независимых Государств [Decision of Regulation of a uniform budget of CIS organs, which are financed from the budgets of member-States of the Commonwealth of Independent States], 20 июня 2000, доступно http://e-cis.info/page.php?id=21345.

¹⁴ Министерство Финансов Республики Беларусь, О финансовых аспектах сотрудничества в рамках Содружества Независимых Государств [*Of Financial Aspects of Cooperation within the Framework of the Commonwealth of Independent States*], available at

http://www.minfin.gov.by/upload/ministerstvo/cooperation/sng.pdf.

¹⁵ See, Informational Letter of the CIS Executive Committee stating that "the Ukrainian party in 2014 has not transferred to the CIS budget any financial assents – neither one hrivna, nor one ruble. At the same time last year representatives of Ukraine worked in the CIS Executive Committee, receiving wages at the expense of contributions of other CIS member-States. Therefore, claims of certain Ukrainian politicians about the allegedly costly for Ukraine participation in financing of CIS organs are baseless." Available at http://www.cis.minsk.by/page.php?id=19175.

of many of its members from the beginning. Many of the goals set out in the Minsk Agreement and the CIS Charter were explicitly integrative, but the institutional structures meant to implement them were either exclusively consultative or were not empowered to impose legally binding decisions."¹⁶ The last conclusion, interestingly, cannot be directly derived from the text of the CIS Charter because it is suspiciously silent on this matter. The question of the legal force of the produced documents will be discussed in detail later in the analysis.

12.2 Six-Criteria Analysis

12.2.1 Membership/Participation

Articles 7 and 8 of the CIS Charter effectively created four types of CIS membership, which, however, is open only to States. Founding States are those that had adopted the Minsk agreement and the Alma-Ata protocols by the time the Charter was opened for ratification, and then adopted the Charter. One might think that the three Slavic nations are the founding members. In reality, only Armenia and Uzbekistan fully met the criteria for founding membership that the Charter set forth, by endorsing the Minsk agreement and the Alma-Ata protocols prior to ratifying the Charter.

The second category comprises those States that share "the purposes and principles of the Commonwealth" and accept the obligations contained in the Charter subject to approval of all member States. Azerbaijan, Georgia, Kyrgyzstan and Tajikistan ratified the Charter and the Alma-Ata protocols but never ratified the Minsk agreement; due to Minsk agreement's close resemblance of the Charter Preamble, failure to ratify it was not considered an obstacle toward 'full membership'.

The third category is the associate membership status that by far has been granted only to one State. Moldova has never ratified the Charter itself, but ratified the Minsk agreement and the Alma-Ata protocols in April 1994. At signing it also specified that it would participate in economic questions only, and so accepted the associate member status. The fourth category of membership is the observer status that has not been granted to any of the former Soviet States and so far has remained dormant.

¹⁶ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 10.

The infighting, which turned out to be deep-rooted in the CIS framework, had also resulted in creation of the fifth category of membership. Three most vociferous advocates of the strong Commonwealth, Belarus, Kazakhstan and Russia comprise the group of 'members-type-two'. These States had not ratified the Alma-Ata protocols, which then necessitated creation of a new category of participating States to parallel that of member States. Recalling that the Alma-Ata protocols incorporated the five Central Asian countries, which had not attended the meeting in Minsk, into the CIS as members of equal standing, the fifth group of CIS member States apparently rejected the notion of equality between the Slavic nations¹⁷ and the Central Asian countries.

Moldova, Turkmenistan and Ukraine have never ratified the CIS Charter. Ukraine and Turkmenistan participate in the CIS by way of their acceptance of the Minsk agreement and the Alma-Ata protocols. By and large, existence of five categories of membership within an organization uniting twelve States¹⁸ cannot be characterized as anything other than unique. These nations are uniquely interconnected in their histories as parts of the Soviet Union; cultural and social ties are uniquely strong between these nations; their political traditions are uniquely alike; and still they exhibited a unique dissonance when it came to their cooperation as sovereign independent States.

12.2.2 Secretariat

The CIS established a formal Executive Secretariat in September 1993, with headquarters in Minsk, Belarus. In 1999 the Executive Secretariat along with eleven other organs was reorganized into a "permanently working executive, administrative and coordinating organ – the Executive Committee of the Commonwealth of Independent States."¹⁹

The Decree on the Executive Committee of the Commonwealth of Independent States establishes the Committee's composition, areas of work, functions, procedures and financial arrangements.²⁰ The Committee is headed by the Chairman of the Executive Committee, who

¹⁷ Although Kazakhstan is not a Slavic nation, for the majority of its population Russian is the mother tongue, and until today Russian is officially used on a par with Kazakh.

¹⁸ Following Georgia withdrawal in 2009, currently the CIS has 11 member States.

¹⁹ Information on the Executive Committee of the Commonwealth of Independent States available at the official CIS website, cis.minsk.by.

²⁰ Decree on the Executive Committee of the Commonwealth of Independent States, June 21, 2000, available at the CIS official website, http://www.cis.minsk.by/page.php?id=376.

also has the title of the Executive Secretary of the CIS. The Chairman is elected by the Council of Heads of States for a three-year term. In his work he is assisted by deputies, departments and other organs as might be necessary.²¹ The Chairman has very broad functions, ranging from management of the Committee and support of the Committee personnel, to organization of sessions of CIS ministerial-level organs, to coordination of activities of specialized organs in intensification of economic cooperation, to maintenance and development of communications with international organizations.²²

The Executive Committee, in the same vein, is entrusted with broad functions, including administrative support of the vast CIS machine, legal expertise of incoming and outgoing documents, communication of various types of information to CIS organs and relevant member-States, and performance of functions of the press secretary.²³ The Committee is located in Minsk, Belarus, and, as per explicit provisions of the Decree, is financed from the uniform budget of CIS organs. The Executive Committee and its personnel are enjoying functional privileges and immunities in order to "provide all opportunities necessary for performance of their functions," presumably ensuring the international character of work.²⁴

It should be concluded, therefore, that the CIS Executive Committee complies with all three criteria of a secretariat of an international organization: it is a separate organ within the structure of the CIS, which is financed from its budget and is empowered to perform diverse functions on behalf of the CIS, ranging from purely administrative tasks to full-fledged political roles. Finally, functional privileges and immunities provide a legal basis for an independent international character of work of the secretariat.

12.2.3 International Legal Personality

"Currently the majority of experts and scholars agree that the CIS is an international regional organization as per Article 52 of the United Nations Charter."²⁵ The ambiguity of the wording of the basic constituent documents, however, spurred the discussion about the status of

²¹ *Id.* at para. 8.

 $^{^{22}}$ *Id.* at para. 9.

²³ *Id.* at para. 6,7.

²⁴ *Id.* at para. 4.

²⁵ Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009. С. 44.

the Commonwealth, or, more precisely, whether it was a subject of international law, and if so, what was the scope of its legal powers.²⁶

Russian authors suggested that the CIS should be considered an international intergovernmental organization because it was created based on an international treaty, its activities were governed by international law, but most importantly because it was comprised of sovereign independent States *de jure* recognized by the overwhelming majority of nations.²⁷ The last argument, obviously, cannot serve as sufficient evidence in favor of identifying an entity as an international organization. Multiple forums, conferences, informal gatherings, committees, councils and the like have been created or are being convened from time to time; participation in such meetings of independent sovereign States recognized by other nations, while is a necessary condition, does not on its own transform them into international intergovernmental organizations.

Further, Russian international law doctrine tends to believe that the status of observer in international organizations belonging to the United Nations system is a firm indicator of international legal personality of an entity in question.²⁸ Just as in case of the COSPAS-SARSAT Programme,²⁹ however, the status of observer in the United Nations or the United Nations Education, Social and Cultural Organization does not *ipso facto* confer any particular international status onto the CIS.

Ambiguous wording of the CIS Charter left the question of international legal personality of the CIS unresolved, despite the best efforts of Russian scholars to employ all possible arguments to persuade everyone of CIS's international competence. In 1998 the CIS Executive Secretariat requested the CIS Economic Court to clarify whether the CIS was a subject of international law, and if so, what competence did it have. Leaving aside an array of acrimonious

²⁷ Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009. С. 45. ²⁸ *Id.*

²⁶ See, e.g., Каженов А.Б., Международная правосубъектность Содружества Независимых Государств [International Legal Personality of the Commonwealth of Independent States] // Белорусский Журнал Международного Права и Международных Отношений, 2002 - №1.

²⁹ For an argument regarding the COSPAS-SARSAT Programme *see*, А.В. Лукьянова, Международно-правовые проблемы использования космоса в целях мореплавания [*International Legal Problems of Using Outer Space for the Purposes of Seafaring*] // Автореферат дисс. на соискание ученой степени к.ю.н. – М., 2005. For an argument that status of observer does not confer any international legal status see *supra*, para. 10.2.3.

remarks about a clear conflict between the mandate of the Court and the object of the inquiry,³⁰ about the credibility of the Economic Court's decision on matters of international public law, and about international legal value of the adopted decision, the findings of this high court will be summarized, at the same time reminding the reader that decisions of the CIS Economic Court are legally non-binding.

The Consultative Opinion explained: "If the subject of international law is defined as a participant in international relations possessing international rights and obligations and performing them based on international law, the Commonwealth has to be regarded a subject of international law. Moreover, international legal personality of the Commonwealth is its immutable characteristic, an attribute of existence. It does not require additional (official) recognition as such by States, including member-States, or by other international organizations. The Commonwealth acts as a subject of international law merely because it really exists and is active in international relations."³¹

The Court went on to state that the CIS had the following rights on the international plane: the right to participate in international relations through establishment of relations with States and international organizations; the right to enter into international agreements with States and international organizations; the right to employ international sanctions in case of violation of international obligations; and the right of the Commonwealth organs to adopt decisions on their behalf.

In Chapter 1 it has been suggested that the right to conclude international treaties on its own behalf is indicative of an existent international legal personality, although taken separately it cannot be used as a conclusive argument. The treaty-making practice of the CIS is not extensive, but is not non-existent. For example, on its own behalf the CIS concluded the Agreement between the Commonwealth of Independent States and the Republic of Belarus about the terms

³⁰ Article 32 of the CIS Charter states: "The Economic Court shall operate for the purposes of fulfilling economic obligations under the framework of the Commonwealth. The mandate of the Economic Court includes the resolution of disputes arising during the implementation of economic obligations. The Court may also resolve other disputes classified as within its mandate by agreements of member states. The Economic Court shall have the right to interpret provisions of agreements and other acts of the Commonwealth for economic issues."

³¹ The Consultative Opinion No. 01-1/2-98 of the Economic Court of the CIS of June 23, 1998, on the interpretation of the CIS Charter [Консультативное заключение Экономического Суда СНГ от 23 июня 1998 г. № 01-1/2-98 о толковании Устава Содружества Независимых Государствот 22 января 1993 г. [Konsul'tativnoe zaklyuchenie Ekonomicheskogo Suda SNG ot 23 iyunya 1998 g. No. 01-1/2-98 o tolkovanii Ustava Sodruzhestva Nezavisimykh Gosudarstv ot 22 yanvarya 1993 g.]]. See also, H. Flavier, *Russia's Normative Influence over Post-Soviet States: The Examples of Belarus and Ukraine*, Russian L. J., Vol. III, Issue 1 (2005), at 19-22.

of stationing of the Executive Secretariat of the Commonwealth of Independent States on the territory of the Republic of Belarus of June 13, 1994.³²

In the end, it should be concluded that the CIS is a subject of international law and, thus, possesses international legal personality. It is an association of States with lawful objectives supported by specially created organs of the organization. In accordance with Article 2 of the CIS Charter, the overarching purpose of the Commonwealth is promotion of cooperation among its member States in various areas; hence, it is only logical to conclude that purposes of the CIS and its members are distinct. Finally, the CIS possesses legal powers exercisable on the international plane, for example, the right to conclude international agreements, the right to adopt decisions on the collective use of armed forces as per provisions of Article 12 of the Charter, the right threaten the maintenance of peace or security in the Commonwealth as per provisions of Article 18 of the Charter, and some others.

12.2.4 Term of Existence

The CIS Charter is silent on this matter; neither does it specify the procedure for withdrawal from the Commonwealth or its dissolution. The broad, almost all-encompassing sphere of cooperation envisioned by the CIS Charter is suggestive of an unlimited term of existence. The Charter, furthermore, does not anywhere suggest that the CIS has been primarily created to facilitate divorce of the former Soviet republics. Thus, only long-term goals are legally a part of the CIS framework, providing additional evidence in favor of the conclusion of the envisioned indefinite term of CIS existence.

12.2.5 Binding Force of Documents Produced

As it has been noted above, the CIS Charter does not explicitly address the question of legal force of the documents produced within the CIS framework. At the same time, the Charter uses the verb 'shall' in every provision outlining cooperative activities to be undertaken by member States. This, however, is not at all indicative of the intentions of the draftsmen. The Charter was drafted in Russian, and both verbs 'shall' and 'should' correspond to one verb

³² Full text available on the official website of the Executive Secretariat of the Commonwealth of Independent States, http://cis.minsk.by.

'dolzhen' in Russian. In Russian legal doctrine usage of this verb itself is not considered an indicator of a legal force of the document, and is traditionally used in all legal documents regardless of their legal force.

Based on the contextual reading of the CIS Charter, it is suggested that the CIS organs are not empowered to adopt legally binding decisions. Article 34 "Organs of Specialized Cooperation" establishes the procedure for establishment of specialized organs – the Inter-State Outer Space Council is one such organ – and stipulates that the organs within their competence are entitled to "adopt recommendations, and if necessary might also make proposals for the Council of Heads of States consideration." Thereby, the logical conclusion is that organs of specialized cooperation are not authorized to adopt any legally binding documents.

Next, the ministerial-level organs of the CIS should be addressed. The Charter explicitly empowers only the Council of Heads of States and the Council of Heads of Governments to adopt decisions using the consensus voting procedure, leaving determination of working procedure of other organs to be decided by the Council of Heads of States.³³ Separate articles are dedicated to setting forth the procedure of chairmanship rotation, the right to invite experts to relevant sessions, the right to create permanent and temporary working groups, but noting is said about the legal force of the Councils' decisions.

In order to resolve the ambiguity, the analysis is moved one level higher to reviewing the goals and spheres of cooperation within the CIS structure. Article 20 describes legal cooperation as follows: "Member-States perform cooperation in the area of law, in particular, by way of concluding multilateral and bilateral agreements on legal assistance and by way of facilitating convergence of national laws." If legal cooperation within the CIS framework does not presuppose adoption of legally binding decisions within the CIS, nor does it direct legally binding cooperation outside the CIS, it is logical to conclude that cooperation premised on legally binding documents, except for the Charter itself, is not a feature of the CIS.

Statistically, no more than ten percent of the signed agreements and substantive decisions of the CIS organs have been implemented.³⁴ These statistics are suggestive of the political value

³³ In practice, all CIS organs formally work using the consensus voting procedure.

³⁴ *Cf.*, R. Sakwa, "Senseless Dreams and Small Steps: The CIS and CSTO between Integration and Cooperation," in M.R. Freire and R.E. Kanet (eds.), *Key Players and Regional Dynamics in Eurasia: The Return of the 'Great Game'* (2010), at 199.

attached to CIS decisions, or at least of the political value that the CIS members attach to the relevant decisions.

12.2.6 Existence of Opportunity to Modify Obligations

Decisions in the CIS organs are to be adopted by consensus, but at the same time Article 23 of the Charter establishes the right of any State to "declare its non-interest in a given question, which must not be considered to be a hindrance for the adoption of a decision." It has been accurately concluded that "nothing in the CIS Charter encourages consensus; in addition to signing a given agreement, members also have the options of abstention, of signing with reservations, or of refusing to sign. Instead of encouraging members to seek compromises or to modify their positions, this procedure allows all of the contradictory stances on a given question to be brought to the conference table."³⁵

Essentially, States preserve an unlimited right to modify any and all adopted decisions. Taking into consideration that presumably CIS organs are empowered to adopt only legally nonbinding recommendations, which in practice do not contain clearly formulated recommended actions and do not bear significant political value, the right to modify obligations is rarely used.

Article 42 of the CIS Charter sets forth the procedure for the Charter amendment. Amendments may be introduced by any member and have to be considered and adopted by the Council of Heads of States. The amendments enter into force upon the receipt by the Government of Belarus of ratification notifications from all members. This procedure resembles the one employed in the European Space Agency: the hierarchically highest organ has to approve the amendment, but the amendment's entry into force is subjected to its unanimous acceptance by member-States in accordance with their national procedures.

The goal of unanimity and the ratification requirement in the amendment procedure are aimed at ensuring that all members of the organization are bound by the same set of legal obligations. The more puzzling then is the provision of Article 43 of the CIS Charter allowing reservations to certain parts and articles of the Charter. The reservations are permitted to provisions regulating military and political cooperation, procedures for conflicts prevention and resolution, inter-parliamentary cooperation and to articles establishing several major CIS organs,

³⁵ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 11.

including the Economic Court and the Human Rights Commission. In effect, the reservations are permitted in almost all areas of cooperation, from economic to military. It is notable that the reservations are not limited by their content: Article 43 does not limit the reservations to such that 'are compatible with the object and purpose of cooperation'. Therefore, any member is free to refrain from cooperation in any of the enumerated areas. That is the type of reservation filed by Moldova: it notified that it would refrain from political and military cooperation. Belarus is the second State that filed reservations; but its reservations are of not such a sweeping nature and rather amount to the declarations of how certain terms are understood and would be treated.

Overall, Articles 42 and 43 are exemplary of the inconsistencies the CIS is based upon. On the one hand, the Charter strives to preserve uniformity of obligations requiring ratification of any amendment by all members, and on the other, allows for sweeping reservations that might thwart cooperation in areas of major importance.

12.3 Evaluation and Conclusions

The six-criteria analysis unequivocally puts the CIS into the international organizations category. It is an organization with membership open solely to States, possessing international legal personality, created for an indefinite period of time that boasts an extensive institutional structure, including an international organization's secretariat, but not authorized to adopt legally binding decisions.

12.3.1 CIS: A Regional Organization?

It has been earlier noted that Russian scholars consider the CIS an international regional organization. This characterization was often used, especially in public discussions, to compare the CIS and the European Union. Following the adoption of the 2009 Lisbon Treaty such comparisons were dropped, but the perception of the CIS as a regional organization persists. In the previous chapter in the course of the analysis of the European Space Agency, it has been suggested that regionalism is a complex concept that, if properly used, might prove an important factor in promotion of cooperation. Moreover, it has been suggested that the European regionalism, characterized by a unique level of integration as well as geographical, cultural and historical closeness, has been one of the prominent factors in the European Space Agency's

success. The bottom line is that regional cooperation is significantly different from multilateral cooperation because it opens an opportunity for cooperation premised on features that can be found exclusively within the region in question; and hence the question of how the region is defined also becomes of paramount importance.

Therefore, it is necessary to decide whether the CIS is indeed a regional international organization. Generally, it would allow hinting at problematic points of the CIS membership structure that have led to an overall lower level of cooperation and partnership between its members. More broadly, a parallel to the European Union can be drawn, but exclusively on the most abstract level, since there can be no doubt that the CIS cannot match the European Union in the level of integration. In the context of the international space law analysis, evaluation of the CIS regionalism would allow identifying whether the regionalism-based features are present within the CIS structure of cooperation, whether they may be used to enhance and deepen cooperation, and whether benefits enjoyed by ESA as a result of successful approach to regionalism may be mirrored by the CIS.

Russian scholars accept characterization of the CIS as a regional organization without reservations: "There are no doubts about the regional character of the Commonwealth of Independent States from the purely geographical point of view: out of twelve member States of the Commonwealth seven belong to the European part of the continent, and five to the Asian part, while the bigger part of the largest CIS State – the Russian Federation – is situated in Asia. Nevertheless, taking into consideration historical traditions and the fact that in the recent past all CIS States were a part of a unified geopolitical entity with its center in Moscow, which undoubtedly must be considered one of European capitals, and also taking into consideration decisions adopted in this regard by the Organization on Security and Cooperation in Europe and the settled practice of designating States to regions in universal international organizations, the Commonwealth of Independent States can be viewed as a European regional intergovernmental organization."³⁶

The cited view leads to two observations. First, it is unclear how an organization comprised of States both from Europe and Asia can be designated to a single region from a 'purely' geographical perspective. Second, an organization comprised of States from different

³⁶ Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009. С. 46.

geographical regions can hardly be characterized as a European one just because territories of all these now-independent States used to be governed from a city located in the European part of the country, which, as it was rightfully noted, has its largest part situated in Asia.

At the same time, regionalism is not only about geographical proximity. Russet's comprehensive study of the phenomenon suggests several prerequisites for successful regional integration: a degree of cultural similarity or at least compatibility for the major politically relevant values, economic interdependence, and the existence of formal institutions with substantial 'consensus-building effects' alongside a geographical proximity.³⁷ Another author has explained that territory is not necessarily the best unifying factor for performance of individual tasks, "but rather it reflects a compromise: it is that single space which has been judged suitable for the attainment of a range of tasks, and it may be more or less appropriate for any one of them. In some sense, therefore, there is a general competence within the region as a whole. This means that regionalism is seen as being necessarily multidimensional."³⁸ Thereby, geographical proximity is not the cornerstone of a successful regionalism, rather a beneficial addition to a union, where member States are largely identical, or at least compatible in cultural, economic and political respects.

The purely geographical approach to regionalism in international legal relations should, thereby, be rejected. The better question as applied to the CIS is: "To what degree do the former Soviet states comprise a recognizable region, and therefore can a single regional order apply to them?"³⁹ So the question is whether the CIS States consider themselves close enough to acquiesce to a uniform intra-region legal order and its worldwide perception as a substantially homogenous unit with common values and goals. The answer to this question depends heavily on the type of cooperation pursued within the region. As explained above, regionalism is multidimensional, meaning that a particular choice of a region might work well enough for one set of purposes and be inadequate for another. In case of the CIS, where as per provisions of the CIS Charter members should strive to cooperate in virtually all areas of international relations, but most importantly in economic and military areas, which require an in-depth cooperation, the

³⁷ B.M. Russet, *International Regions and the International System: A Study in Political Ecology* (1967), at 10, cited in T.V. Paul (ed.), *International Relations Theory and Regional Transformation* (2012), at 184.

³⁸ P. Taylor, International Organization in the Modern World (1993), at 7.

³⁹ R. Sakwa, "Senseless Dreams and Small Steps: The CIS and CSTO between Integration and Cooperation," in M.R. Freire and R.E. Kanet (eds.), *Key Players and Regional Dynamics in Eurasia: The Return of the 'Great Game'* (2010), at 213.

answer should be in the negative. And here lies the reason behind the mediocre CIS performance as a cooperative and integrative entity.

The road to the unsatisfactory level of cooperation was laid down by the wrangling over the CIS Charter. Although all of the Soviet successor States except the three Baltic nations eventually joined the organization, "most members have opted out of one or more of the key political, economic, and security agreements that were intended to be the main instruments of integration. The heads of the CIS states have all met regularly, but the agreements drawn up at their meetings have had no real force; indeed, the only reason that such sessions continue to be held seems to be that most of the leaders find some other utility in regular summit meetings."⁴⁰

Another author has correctly noted that "the pursuit of integration in the post-Soviet Eurasia concerns institutions, but it is also about ideas: the vision that the region at some level remains some sort of political community. While the dream of unity remains an active project, the object remains as elusive as ever. Initiative is piled upon declaration, yet there appears to be little substantive progress."⁴¹ The ideas have always been the centerpiece element in any more or less sizable undertaking in the former Soviet nations simply because the whole Soviet Union was based on one immaterial but very powerful premise – ideology. But when the idea lacks overwhelming obtrusiveness it loses its immense power; and that is where the differences stand out. Obviously, the idea of a new union right after dissolution of the other did not possess the storm-like power of communist values.

There are, of course, objective reasons that preclude characterizing the CIS States as a union governed by a single regional order. Mark Webber argued that the absence of federalization within the CIS derived from inter-state competition, under-institutionalization and a weakness of unifying values, alongside incongruities arising from national elite perceptions, state viability, regime type and levels of economic convergence.⁴² The main reason, of course, lies in the sphere of economy: while Russia, despite all its economic hurdles, remains the most prosperous member of the CIS, a majority of the Central Asian republics' citizens live below the

⁴⁰ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 3.

⁴¹ R. Sakwa, "Senseless Dreams and Small Steps: The CIS and CSTO between Integration and Cooperation," in M.R. Freire and R.E. Kanet (eds.), *Key Players and Regional Dynamics in Eurasia: The Return of the 'Great Game'* (2010), at 195.

⁴² See, M. Weber, "A Confederation in the Making? Means, Ends and Prospects of the Commonwealth of Independent States," in A. Heinemann-Grüder (ed.), *Federalism Doomed?: European Federalism between Integration and Separation* (2002), at 170.

poverty line, and the more or less solid economies of Belarus and Ukraine remain unstable and often require outside help.⁴³ In such a situation, one should have a very creative imagination to envision an equitable union of States premised on the notion of partnership. "The combination of passive resistance by most member states and enthusiasm without resources by others has prevented the CIS from developing into an effective organization. In fact, Russia's continued determination to make the CIS work is the only thing that has kept the organization from dying entirely."⁴⁴

Against this background, it is argued that the CIS is an international intergovernmental organization with a limited membership, not a regional organization. It was created to achieve a very concrete result, and "without question its pacific mediation of the breakup of the USSR was the greatest service that the CIS could have performed."⁴⁵ The fact that neither the Russian doctrine, nor Western scholars have arrived at a uniform view on whether the dissolution of the Soviet Union was a breakup of a single country or that of an empire, signifies the fact that internal ties among the former Soviet republics are being questioned on many levels. Nowadays, twenty-five years after the Soviet Union's dismemberment, strong ties between the formerly united nations seem to be an anecdote from the long gone days. In the words of the former president of Ukraine, the CIS at the outset was created to facilitate the divorce of the newly independent States.⁴⁶ Hence, having been created with one particular task in mind, and having all other goals as residual to the overarching one, it could not have been premised on any other criterion than being a part of the former Soviet Union; the geographic or any other regionalism had nothing to do with the choice of States allowed for participation in the Commonwealth. In the concluding part of the chapter it will be discussed whether an organization with a membership limited by non-space-related factors might be at all an effective mechanism of international cooperation in exploration and use of outer space.

By the beginning of the new century, with resignation of the Russian president Eltsin, a vociferous CIS supporter, the Commonwealth lost that little influence it used to have. One scholar eloquently summarized the popular CIS perception: "News stories coming out of the CIS

⁴³ Сf., Михайленко А.Н. СНГ: Быть или не быть? [CIS: To Be or Not to Be?]. М., 2007. С. 35-39.

⁴⁴ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 25.

⁴⁵ *Id*. at 230.

⁴⁶ See, Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009. С. 35.

these days sound like reports from the frontline: Georgia, Ukraine, Moldova and Kyrgyzstan are lost; Adzharia has fallen; Transdniestria is under siege. ... This is a less menacing continuation of the Cold War that was waged by the West and the Soviet Union for almost half a century, and now entails a smaller space and a different alignment of forces. Obviously the struggle between Russia and the West for Ukraine and Belarus is a direct extension of the struggle between the Soviet Union and the West for Poland, Hungary and Czechoslovakia."⁴⁷

In 2007 the Council of the Heads of States adopted the Strategy of the Commonwealth of Independent States Development in an attempt to revive the fading cooperation. The Strategy opens with a proclamation that the CIS is a regional intergovernmental organization, a form of cooperation of equal independent States in almost all areas of intergovernmental relations. It goes on to acknowledge that participation of certain CIS members is limited to specific areas, while suggesting that multi-level and multi-format cooperation necessitated by the different levels of States' participation enhances the overall level of cooperation allowing to take into consideration specifics of each CIS member State.

The Strategy enumerates objectives that will allow achieving a greater level of interconnectedness and will overall help developing the organization. It is worth listing them all: promotion of socio-economic stability and international security; strengthening of good-neighbor relations among member States; increase of States' competitiveness and ensuring their inclusion in the world-wide market in order to achieve progress and prosperity; achievement of the maximized effectiveness in solving common problems caused by globalization; enhancement of the level of life and wealth of citizens of member States; facilitation of accession of each member State to the World Trade Organization; prevention of traditional and new threats; development of cooperation in the humanitarian sphere; realization of the main international principles and standards in the areas of democracy and human rights; further convergence of national laws of member States in different areas of cooperation based on the general principles and norms of international law; and provision of an effective dialogue on all levels in order to implement the above enumerated goals and prepare the Commonwealth for new stages of enhanced cooperation.

One cannot fail to notice that only three goals actually touch upon issues concerning the organization and its development as a separate entity; the majority of these goals focus on

⁴⁷ D. Furman, A Silent Cold War, Russia in Global Affairs, vol. 4, no, 2 (2006), at 68.

changes that have to take place on national levels. While without a doubt prosperity of members of an organization directly affects success of the organization, the international organization, after all, is a separate subject and it has its own 'laws of physics'. It is suggested that an international organization can shift the focus from its own development to that of its member States in one of the two cases: it is either a highly de-formalized organization that effectively resembles a confederation, or it has become an organization with supranational authority. Since the CIS cannot neither legally, as per provisions of Article 1 of the CIS Charter, nor practically be rendered the latter, the former description is apparently the correct one.

12.3.2 CIS Space Cooperation

Despite the challenges the CIS was facing in promoting integration and cooperation in areas of economic development and security, outer space cooperation has always been the one area where cooperation was necessary for objective reasons. The formerly united Soviet space complex now was scattered along the territories of Kazakhstan, Russia and Ukraine. The Inter-State Outer Space Council was created on December 30, 1991 pursuant to the Agreement between the Member States of the Commonwealth of Independent States about Cooperation in Exploration and Use of Outer Space.⁴⁸

The Agreement in Article 1 states that cooperation in outer space should be based on Inter-State Programs. The Inter-State Programs, in accordance with Article 4 of the Agreement, are created based on agreements between member States on "utilization of existing and newly created space complexes and objects of space infrastructure," which include two launch facilities Baikonur and Plesetsk, the Center for cosmonauts training, space flights centers, research centers and some other objects, all of which are located on the territories of the three States.

The Agreement targets only cooperation in performance of space applications projects, but is silent regarding matters of 'down-to-Earth' space cooperation, particularly in areas of space research, technology and education. Articles 8 through 10 levy obligations in these areas onto cooperating States obligating them to "preserve and develop existing scientific, technical and manufacturing potential in design, creation, testing and processing of rocket-space technology." Hence, potential cooperating States have one of two options in terms of technology: either to use the already existing equipment, which is only few years away from becoming

⁴⁸ The full text of the Agreement is available at the CIS official website, http://www.e-cis.info/index.php?id=182.

obsolete, or to develop and manufacture necessary equipment 'from scratch', and, most importantly, outside the cooperative framework.

The Inter-State Outer Space Council, in accordance with the provisions of Article 2 of the Agreement, has only a coordination role in implementation of the Inter-State Programs. The Protocol appended to the Agreement, establishing the Inter-State Outer Space Council structure, clearly stipulates that the Council has only consultative functions and is only mandated to make recommendations to the representatives of the CIS members.

The possibility of inter-State cooperation only through the Inter-State Programs that are to be agreed upon by way of unspecified agreements between participating States, most likely bilateral agreements, limited in areas of cooperation, and coupled with a limited mandate of the Council allow the suggestion that the Agreement was never intended to become a solid basis for multilateral space cooperation of all CIS States. In other words, the Agreement encourages bilateral relations to be the basis for cooperation, not the multilateral coordination using the CIS mechanisms. Bilateral cooperation has been indeed the basis for space cooperation over the past twenty-five years. The main asset located on the territory of Kazakhstan is the Cosmodrome Baykonur, and terms of cooperation between Russia and Kazakhstan regarding this launching facility were established by a set of bilateral agreements, the latest of 2009 introducing amendments to the Lease Agreement of the Baykonur Complex between the Government of the Russian Federation and the Government of the Republic of Kazakhstan of December 10, 1994.⁴⁹

Manufacturing of engines for the launch vehicles is now conducted on the territory of Ukraine. It comes as no surprise that space launch vehicles' engines are classified as sensitive technology, and therefore are subject to heightened scrutiny when crossing State borders. To facilitate transportation of the engines, Russia and Ukraine concluded the bilateral Agreement on Movement of Goods within the Framework of Cooperation in Exploitation of Outer Space and Construction and Operation of Rocket-Space and Rocket Technology.⁵⁰ At the same time, the

⁴⁹ Федеральный закон от 28 апреля 2009 года N 64-ФЗ О ратификации Протокола между Правительством Российской Федерации и Правительством Республики Казахстан о внесении изменения в Договор аренды комплекса "Байконур" между Правительством Российской Федерации и Правительством Республики Казахстан от 10 декабря 1994 года [Federalniy Zakon ot 28 Aprelya 2009 goda N 64-FZ O Ratificazii Protocola mejhdu Pravitelstvom Rossiyskoi Federazii i Pravitelstvom Respubliki Kazakhstan o Vnesenii Izmeneniy v Dogovor Arendi Kompleksa "Baykonur" mezhdu Pravitelstvom Rossiyskoi Federazii i Pravitelstvom Respubliki Kazakhstan ot 10 Decabrya 1994 goda], text of this Federal Law has not been officially published. Full text is available at the Russian Space Agency official website http://www.federalspace.ru/2368/.

⁵⁰ Федеральный закон от 28 июня 2002 года N 74-ФЗ О ратификации Соглашения между Правительством Российской Федерации и Кабинетом Министров Украины о перемещении товаров в рамках сотрудничества

Agreement on the Terms of Maintenance and Operation of Objects of Space Infrastructure for the Benefit of Development of Space Programs of May 15, 1992 concluded within the CIS framework⁵¹ provides that coordination of utilization of space infrastructure for both intergovernmental and national programs in exploration and use of outer space shall be conducted through the Inter-State Outer Space Council.

It has been noted that parts of the formerly united space complex, which are now split up between the three States, have uniform technological standards that are different from the European and American technological standards, making proper coordination absolutely essential: launch of Russian and Ukrainian space vehicles is impossible from European and American launch facilities, and vice versa.⁵² Initially, the Inter-State Outer Space Council was envisioned as an organ allowing Kazakhstan, Russia and Ukraine to coordinate their national space programs through open dialogue; it was also seen as a basis for continuous cooperation of national space industries in maintenance and utilization of a *united* space complex. Nevertheless, due to almost prohibitive governmental control over space industry and traditional wariness of allowing the private sector in space activities,⁵³ all three States have been reluctant to coordinate their space programs on a multilateral level within the CIS. For example, the Decision of the Council of Heads of States on Optimization of Organs of Sector Cooperation of the Commonwealth of Independent States of November 14, 2008 noted that the Inter-State Outer Space Council had not been convened since the late 1990s.⁵⁴

In 2011 an effort was made to revive multilateral space cooperation between member States of the CIS. Under aegis of the Russian Government an international conference themed

в освоении космического пространства и создании и эксплуатации ракетно-космической и ракетной техники [Federalniy Zakon on 28 iynuya 2002 goda N 74-FZ O Ratifikazii Soglasheniya mezhdu Pravitelstvom Rossiyskoi Federazii I Kabinetom Ministrov Urkaini o Peremeschenii Tovarov v Ramkah Sotrudnichestva v Osvoenii Kosmicheskogo Prostranstva i Sozdanii I Ekspluatazii Raketno-Kosmicheskoi i Raketnoi Tekhniki], text of this Federal Law has not been officially published. Full text is available at the Russian Space Agency official website http://www.federalspace.ru/2369/.

⁵¹ Соглашение о порядке содержания и использования объектов космической инфраструктуры в интересах выполнения космических программ [Soglashenie o Poryadke Soderzhaniya i Ispolzovaniya Ob'ektov Kosmicheskoi Infrastrukturi v Interesah Vipolneniya Kosmicheskih Programm]. Full text is available the CIS official website http://cis.minsk.by/reestr/ru/index.html#reestr/view/text?doc=168.

⁵² See, Молдабеков Е.М., Винокуров Е.Г. Перспективы сотрудничества стран СНГ в космической отрасли [*Perspectives of Cooperation of the CIS States in Space Area*]. Отраслевой обзор ЕАБР №8, 2010. С. 37. ⁵³ *Id.*

⁵⁴ Решение об оптимизации деятельности органов отраслевого сотрудничества Содружества Независимых Государств [*Reshenie ob Optimizazii Deyatelnosti Organov Otraslevogo Sotrudnichestva Sodruzhestva Nezavisimih Gosudarstv*]. Full text is available on the official CIS website http://www.e-cis.info/page.php?id=20827.

"Space Research in the CIS member States: integration, potential development and legal aspects" was held in Moscow. It was attended by high-ranking Russian officials, and the Chairman of the second chamber of the Russian Parliament made a statement emphasizing the need to promote and strengthen multilateral cooperation within the CIS region. The conference's concluding act contained four recommendations: to promote effective governmental policies in supporting space researches; to take steps toward deepening of integration in space activities; to provide for separate national funding of fundamental space researches; and to prepare recommendations on development of international legal documents regulating different aspects of outer space exploration and use. Finally, the conference requested national science academies to consider creation of an international scientific organization "The United Institute of Space Research".⁵⁵

Sessions of the Inter-State Outer Space Council in 2012, 2013 and 2014 did not, however, reveal any substantive changes in the format or the nature of cooperation. All sessions lasted no more than two days and were concluded with documents filled with phrases that something 'was considered', 'taken into account', 'reviewed' and the like. The idea of "The United Institute of Space Research" is moving slowly, and during the last session of the Inter-State Outer Space Council held on October 23 and 24, 2014 the amended draft of the Agreement on the Creation of an International Scientific Organization "The United Institute of Space Research" was presented to the delegates. A decision was made that the drafters of the Agreement – the Russian Academy of Sciences – present the draft to the CIS Executive Committee "for consideration in accordance with the rules of procedure."⁵⁶ As always, during the session the parties proclaimed that an in-depth coordination and unification of efforts of States in outer space sphere was necessary. The events of 2014, however, and particularly Russian annexation of Crimea and the ongoing armed conflict in Eastern Ukraine, shattered the chances of successful multilateral cooperation of the CIS States in outer space activities.

In the end, cooperation in the exploration and use of outer space has been effectively absent from the CIS framework despite the objective need for such cooperation and already existing institutional structure. A Russian scholar acknowledging the primary role of bilateral cooperation between the former Soviet States in outer space activities noted that effective

 ⁵⁵ Final Resolution of the International Scientific Conference "Space Research in the CIS member States: integration, potential development and legal aspects," October 4, 2011. Full texts of all conference documents are available on the Federal Council of the Russian Federation http://council.gov.ru/activity/analytics/publications/574.
 ⁵⁶ Reports of the Inter-State Outer Space Council 2010-2014 sessions are available at the CIS official website, http://www.e-cis.info/index.php?id=312.

multilateral cooperation would not have been possible without bilateral cooperation.⁵⁷ That might well be true, but unfortunately, until now no multilateral cooperation of the CIS States in exploration and use of outer space has taken place, let alone been effective.

12.3.3 Results and Perspectives

Overall, it has been suggested that "the CIS has not become an attractive proposition for its members, and even Russia has feared being constrained by its multilateral obligations."⁵⁸ Keeping in mind that Russia was the most active, passionate supporter of the CIS, one cannot fail but notice that the CIS's nonfulfillment explanation suffers from a circular reasoning fallacy. On the one hand, the CIS has not become attractive to its members because it is essentially toothless and not able to provide something the weaker States have been longing for, namely security and support. On the other, Russia, fearing for its own independence, particularly in determining its foreign policy objectives, but at the same time striving to unite and to some extent subordinate other CIS States, has chosen the path of economic bilateral pressure instead of working on a multilateral level through CIS cooperative mechanisms. Hence, a lack of uniform regional order has led other CIS members to realize that they can only expect to obtain Russia's support and protection through individual negotiation, and not by using the CIS mechanism. And so they move in a perfect circle.

Undoubtedly, by now the CIS States do not exclusively rely on Russia; the geopolitical situation has changed dramatically; but the detachment of the CIS members further away from each other initially was spurred, essentially, by Russia's indecisiveness in choosing its foreign policy objectives. "Indeed, soon after his inauguration on 7 May 2008 Dmitry Medvedev stated that strengthening Russia's ties with other former Soviet republics would be the priority for his presidency, and his first foreign visit as president was to Kazakhstan. This was in contrast with Vladimir Putin, who began his presidency by stressing the importance of ties with the EU."⁵⁹ Now it is long too late to re-think and re-orient.

⁵⁷ See, Моисеев Е.Г. Международно-правовые основы сотрудничества стран СНГ [International Legal Basis for Cooperation of CIS States]. М., 1997. С.9.

⁵⁸ R. Sakwa, "Senseless Dreams and Small Steps: The CIS and CSTO between Integration and Cooperation," in M.R. Freire and R.E. Kanet (eds.), *Key Players and Regional Dynamics in Eurasia: The Return of the 'Great Game'* (2010), at 203.

⁵⁹ *Id*. at 195.

Russian scholars, by contrast, pronounced: "By now the Commonwealth has become an integral element of the Eurasian political system, a reality that exists despite one or the other subjective attitude toward it. The CIS provides institutional, organizational and to some degree legal commonality of the majority of States in the post-Soviet region."⁶⁰ An opinion has been expressed that the CIS "remains under-institutionalized, and thus ineffective; although there is little evidence to suggest that greater institutionalization would render the organization more viable."⁶¹ It is suggested that the CIS is institutionalized enough, and indeed further growth of the already large institutional machine of the CIS would not add any value to the organization's effectiveness; what it is lacking is proper management.

The CIS has a total of eighty-four organs, each with its own peculiar mandate and zone of responsibility; it is a number that will make some universal international organizations jealous. But, just as it has been shown in the case of the Inter-State Outer Space Council, some of them have not been convened for decades. The staff continues to be employed, salaries continue to be paid, and procedural documents continue to be adopted. In such a situation, when resources are being spent literally for nothing, and States do not feel any need or pressure to attend the meetings, the right thing to do would have been termination of non-working organs. That would achieve the main goal, freeing up time and attention of States representatives to focus on the questions that they feel the need to focus on. Over-bureaucratization leads to 'routinization' of meetings that in the end seem to become a never-ending line of meaningless reports, interventions and notes. Apparently, that is what has happened to the CIS. It took up more tasks than the member States were willing, or maybe simply capable, of meaningfully dealing with. Participation in eighty-four organs requires a whole platoon of diplomats, an unaffordable luxury for States that have never before had any inter-State relations, have never had a ministry of foreign affairs or any diplomats. In the end, the CIS diffused its attention across too many topics; it took Europe almost half a century to achieve the level of cooperation allowing the European Union to involve itself in questions of economy, social and cultural policies, security and development; the CIS attempted to do it essentially overnight.

⁶⁰ Косов Ю.В., Торопыгин А.В. Содружество Независимых Государств. Институты, интеграционные процессы, конфликты и парламентская дипломатия [*The Commonwealth of Independent States: Institutions, Intergational Processes, Conflicts and Parliamentary Diplomacy*]. М.: 2009. С. 29.

⁶¹ R. Sakwa, "Senseless Dreams and Small Steps: The CIS and CSTO between Integration and Cooperation," in M.R. Freire and R.E. Kanet (eds.), *Key Players and Regional Dynamics in Eurasia: The Return of the 'Great Game'* (2010), at 203.

Some fifteen years ago a scholar opined: "The CIS was most effective at its birth; it has steadily declined in effectiveness ever since. This suggests that it will probably prove to be a transitory phenomenon, which will either disappear or be radically restructured well before the last ties that held the Soviet states together are dissolved."⁶² Several initiatives of the last decade ventured to add momentum to cooperation have been fruitless in most areas of cooperation. The Customs Union seemed to be a promising exception, but with Russia's turn toward aggressive foreign policy even its most faithful ally Belarus has begun distancing itself from Russia,⁶³ thereby marking the demise of the Customs Union. Space cooperation, however, has not been damaged in the course of the recent events. As it has been explained above, multilateral space cooperation in the CIS has never been born; bilateral case-by-case cooperation has completely filled in the gap. Although geopolitical events might have a negative effect on bilateral cooperation, it would be a result of political, not legal changes. It has to be admitted that the CIS has not become a mechanism for multilateral space cooperation, and nowadays there is not a single indication, either from a legal or political perspective, that the situation might turn around.

"The demise of the CIS has long been predicted, but it appeared finally to have arrived with the Russo-Georgian war of August 2008 and Georgia's decision that it would leave the organization. The procedure was activated, and a year later Georgia left the grouping, reducing membership to eleven states."⁶⁴ From a legal perspective, withdrawal of one member has not altered the institutional structure of the organization, or jeopardized its activities, or had a degrading effect on the effectiveness of its decisions. But it had a degrading effect on a political level. Fear of Russia had always been a factor dissuading smaller States from deeper integration within the CIS, and Russia's actions during the Russo-Georgian war, which led to resolution of the internal Georgian conflict in the most conclusive way possible,⁶⁵ only further strengthened and added credibility to this fear. A legally stable international organization was deprived of its political foundation.

⁶² M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 237.

⁶³ See, e.g., Миронов В. Белоруссия вернула таможню на границу с Россией [*Belarus Has Reinstated Customs Control on the Border with Russia*] // Российская Газета от 8 декабря 2014, available at http://www.rg.ru/2014/12/08/belorussia-site-anons.html.

⁶⁴ R. Sakwa, "Senseless Dreams and Small Steps: The CIS and CSTO between Integration and Cooperation," in M.R. Freire and R.E. Kanet (eds.), *Key Players and Regional Dynamics in Eurasia: The Return of the 'Great Game'* (2010), at 199.

⁶⁵ Id.

"The failure of the CIS to become an effective body has left many of the issues that the group attempted to address unresolved. To the extent that it allows the leaders and senior officials of the member states to meet on a regular basis in a controlled environment, the CIS has been the effective political forum. Judged by the policies it has actually been able to put into place, however, the CIS has been a political failure."⁶⁶ Indeed, it has been a legal failure too.

If one agrees that the primary purpose of the CIS was to facilitate the divorce of the former Soviet nations, the CIS still has not been able to deal with all questions that arose the moment the Soviet Union ceased to exist. To name a few, the absence of a coordinated monetary policy led to hyperinflation in most States causing devastating financial crises throughout the region; the inability to compromise prevented States from settling allocation of the Soviet debt eventually worsening the Russian economic crisis of 1998 that affected all neighboring States; self-centered and cunning migration policies primarily in Russia and Ukraine led to tremendous flows of intra-region migration causing social and legal problems up until now; and, of course, a complete absence of coordination in questions of security immediately ignited vicious armed conflicts, particularly the one between Azerbaijan and Armenia over the Nagorny Karabakh region. There are objective as well as personal reasons behind these failures that has been extensively analyzed in historical and political scholarly works.

From the perspective of the present analysis it should be decided whether the mechanism of cooperation created within the CIS is a viable option for cooperation in the exploration and use of outer space. First, the CIS is a traditional international organization, uniting sovereign States, possessing an international organization's secretariat and international legal personality, created for an indefinite period and empowered to adopt legally non-binding decisions. Second, the CIS is not a regional organization in the modern sense because it unites States not based on the geographical proximity and economic, political and social closeness, but based on their former inclusion in one State. The CIS has never been an 'open' international organization, allowing as its members only States that have a certain historical background. The organization is not based on commonality of anything else but the past, making the structure inherently unstable: while the past always remains the same, States move on, change and evolve, thus making their common past more and more irrelevant with every passing year. In turn, such an

⁶⁶ M.B. Olcott, A. Åslund, S.W. Garnett, *Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States* (1999), at 233.

organization can remain viable only subject to continuous cooperation of its members based on their immediate needs. In this sense, analogy to the Commonwealth of Nations is relevant: Cameroon and Canada are members of the Commonwealth of Nations, but no one expects them to be the closest allies and cooperate on a broad range of questions.

Third, by way of extension, membership in the CIS is not subjected to an impartial, objective set of requirements. Most other international organizations have a more or less formalized set of prerequisites for admittance to membership that in principle can be met by any State. Even international organizations allowing admittance only of States within a particular geographical region have a set of membership prerequisites that should be met by those States within the region; in other words, not every single State within a region is automatically admitted in the organization, but only when necessary requirements are met. The European Space Agency is a good example of a regional organization that has not admitted all countries in the region at once, but stipulated certain conditions and has been expanding over the past forty years at a steady pace. In the CIS, by contrast, all former Soviet Union republics, except for the Baltic States that declared that they had never been a part of the Soviet Union and so would not participate in the CIS, were invited in the CIS; at the same time, there is no set of requirements that any other State might possibly fulfill to get admitted to the Commonwealth. Neither peaceloving intentions, nor willingness to cooperate with all members of the CIS might grant such a hypothetical State keys to the Commonwealth's front door. And this fact dramatically changes the climate of CIS cooperation.

Fourth, the CIS had only one clear goal – to assist newly independent States in the transition from the status of a Soviet republic to the status of a sovereign State. Other goals as stated in the CIS Charter are declaratory at best, and, at least at the time of drafting, had no particular context or meaning. In the absence of independent economies it is pointless to declare the need for economic cooperation. Industries, roads, system of education, social services, legal system, military – all were united, each was a single system that now had to operate as fifteen separate ones. It is hard to see how these States might have cooperated in providing peace and security when military officers could not even understand who was their new commander, which State they served, whose citizens they protected.⁶⁷ Consequently, the CIS Charter declared

⁶⁷ *Id.* at 8-12.

cooperation in all possible areas of inter-State cooperation without any practical basis for its implementation, leaving the CIS institutional mechanism almost hanging in the air.

This work is premised on an understanding of a distinctive nature of outer space activities and consequently on an understanding of a distinctive nature of international legal cooperation in outer space. The European Union, an organization with supranational authority primarily in economic area, has not been actively included in regulation and coordination of outer space activities. Only in the recent years has it moved toward greater involvement in space area, but again to a limited extent. If one wishes to compare the CIS and the European Union, it should be agreed that not everything can be regulated on an international level, at least not everything at once. That is undoubtedly true as applied to space cooperation.

Not every member of the European Union is actively involved in exploration and use of outer space; that is the primary reason why not all members of the Union are members of the European Space Agency. And that is the reason why a specialized space-oriented organization was deemed necessary instead of trying to fit it in the framework of the European Communities. Similarly, not every CIS State has space ambitions. But every CIS State participated in the Inter-State Outer Space Council in the first years of its existence. How, for example, would participation of Tajikistan be beneficial for development of outer space exploration and use? How would its participation be beneficial for Tajikistan itself? Bearing in mind that the Inter-State Outer Space Council focuses on coordination of space activities within the formerly united Soviet space complex, participation of non-spacefaring nations is simply unnecessary.

By and large, Russian and Western scholars have opposite views on the significance of the CIS in promoting cooperation between the former Soviet republics and on the future of the organization. Doubtlessly, the CIS has been an important tool in building sovereign States from the rubble of the Soviet Union. But in the area of international space cooperation the CIS has not added much value.

In addition to the abovementioned flawed 'all-inclusive' approach to space cooperation, subjecting membership in the Inter-State Outer Space Council only to the membership in the organization and nothing more, the legal foundation has not been created to promote cooperation, but to merely declare it. The Agreement between the Member States of the Commonwealth of Independent States about Cooperation in Exploration and Use of Outer Space in Article 1 states that cooperation in outer space should be based on the Inter-State Programs, thus, limiting meaningful multilateral space cooperation, as has been noted above, in two ways. First, it effectively suggests bilateral cooperation in fulfillment of space programs. Second, the Agreement limits cooperation to practical applications and eliminates preparatory stage from the scope of cooperation, thus making space cooperation grotesquely one-sided. By contrast, the main purpose of the European Space Agency as pronounced in Article II of the Convention for the Establishment of a European Space Agency is "cooperation among European States in space research and technology and their space applications." In a technologically sophisticated environment of space exploration every project is preceded by a painstaking process of development, testing, fine-tuning and more testing; exclusion of these stages from a cooperative process and shift of the focus toward the final stage, questions feasibility of successful completion of a cooperative project comprised of possibly incompatible elements.

This, however, is not the main drawback of the chosen cooperative framework; after all, in every space project human and financial stakes are too high to neglect the compatibility and safety checks. The chosen approach limits the scope of cooperation and precludes further development. On the one hand, there are parts of the former Soviet space complex that by definition are fully compatible and can be operated with minimal preparatory activities. On the other, cooperation is limited only to the implementation stage, excluding an opportunity for participating States to develop new technologies in close cooperation with one another to ensure the continuing compatibility both with the already existing elements and those developed and employed in other cooperating States. It has been noted above that the Soviet space infrastructure and European and American space technologies are unfitting; that, however, does not mean that over time now-independent space industries of the CIS States cannot re-orient toward compatibility with the Western equipment. In the end, there is no guarantee that space technologies of the CIS States will always remain compatible, and the currently existing mechanism of cooperation does not stimulate a multi-faceted cooperation, effectively 'freezing' utilized types of technology at the level of year 1991, thereby limiting the scope of CIS space cooperation.

Against this background it is not surprising that the Inter-State Outer Council has been convened sporadically, sometimes with years-long intermissions, has had almost no influence on national space strategies, and has not been able to introduce a single Inter-State Program that would have been implemented using the CIS mechanism of cooperation. Currently the Council

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has ceased to work; instead, space-related matters are discussed within the permanently working meeting of representatives of national space agencies of the CIS members. The last session of the Council was attended by representatives of five States, while two States – Azerbaijan and Ukraine, were present in the status of observers. Nine States signed the 1991 Agreement and three other States attended sessions in the status of observers; so, over the period of twenty-five years the Council membership has significantly decreased. Since 2010, the sessions have been regular, although lasting no more than two days and convened only once a year, which is a significant improvement compared to the first decade of the twentieth century, but still can hardly bring about drastic changes in the level and intensity of CIS space cooperation.

By way of conclusion, it should be noted that space cooperation is, of course, not the cornerstone of the Commonwealth, and the minimal results achieved are not a unique feature of the space area. In some spheres the CIS has been more successful than in others, but overall the net result is unimpressive. In this situation official statements praising the CIS as an indispensable instrument in coordination, dialogue and fruitful cooperation seem a baseless bravado, or an attempt to save the terminally ill by applying chamomile decoction.⁶⁸ Nonperformance of the CIS has been caused by different reasons in different areas of attempted cooperation. Creation of a unified system of national security has failed due to persisting fear of Russia among other members, especially the fear that it can use, and indeed has already used, its military power not to the benefit of its neighbors.

Economic cooperation has not resulted in the projected Economic Union, and the modest successes of the Customs Union establishment and the Eurasian Union formation have been negated by the geopolitical events of the previous year. More generally, it was noted that economic insufficiency of the Commonwealth was caused by the unbalanced environment of the organization with only one leading State, where the other eleven members combined could not compete with Russia in terms of the size of the economy. Moreover, the CIS members are economically dependent upon Russia;⁶⁹ while it can cut off supplies to the CIS countries, they hardly can do that to Russia. The European Union, for example, similarly does not unite economically equal States – there are hardly any economically equal States at all, each is different in its subtle way – but it has more than one leading State; Germany, France, the United

⁶⁸ Quotes of heads of CIS States about the important role of the CIS are available at the official CIS website, http://www.e-cis.info/news.php?type=27.

⁶⁹ Сf., Михайленко А.Н. СНГ: Быть или не быть? [CIS: To Be or Not to Be?]. М., 2007. С. 35-39.

Kingdom and Italy are all believed to be leaders in their respective sub-regions, but at the same time none of them is overwhelmingly more powerful than the rest.⁷⁰

"Although a Russian presidential decree of 14 September 1995 recognized the principle of multi-speed integration in the CIS, even the most imaginative variable geometry could not disguise the fact that the CIS has not moved close to its original ambition of becoming an EUtype common market."⁷¹

Political issues have had much lesser impact on space cooperation within the CIS, but even so it is not a success story. From the beginning space cooperation was lacking dynamics and could not boast a firm legal basis. Despite the expediency in establishing the Inter-State Outer Space Council days after the Commonwealth itself came into being, this drive very soon wore out and Council's meetings occurred less and less often, by now having transformed into annual brief meetings of heads of national space agencies proclaiming goals that can never be achieved. Favoring bilateral cooperation over multilateral cooperation and focusing on practical applications with complete abandonment of cooperation in technological and scientific areas, coupled with blanket membership in the Council of all CIS members and powerless institutions, contributed to the demise of CIS space cooperation. Doubtlessly, political controversies, economic hurdles and traditional Soviet secretiveness in matters related to national security, of which the space industry is a major element, all played part in the perfect recipe of imperfect cooperation.

Specialists in political science, economics, history, socio-cultural sciences would argue the importance of one factor over the other in the CIS failure. As mentioned above, different factors played predominant roles in halting economic, security and cultural integration; similarly, peculiar reasons have contributed to failed space cooperation. It is suggested, however, there is one overarching reason that, in turn, aggravated other anti-integration components of the Commonwealth. The CIS is a union of indisputably unequal States, of States with varying cultures, values and even languages; the predominant uniting factor is the former inclusion in the Soviet Union, which itself resembled an empire, not a single State. Subjecting membership in the

⁷⁰ Cf., M.B. Olcott, A. Åslund, S.W. Garnett, Getting it Wrong: Regional Cooperation and the Commonwealth of Independent States (1999), at 37-72.

⁷¹ E. Vinokurov, "Russian Approaches to Integration in the Post-Soviet Space in the 2000's," in K. Malfliet et al. (eds.), *The CIS, The EU and Russia* (2007), at 40.

CIS to the status of a former Soviet republic is not a problem by itself; the problem here lies in the goals the CIS was created to achieve.

The need for an intermediary on the way from the Soviet Union to fifteen independent States can hardly be questioned. But maybe out of fear of unknown, or fear of responsibility, or quite prosaic financial considerations, the heads of the newly independent States attempted to create a confederation that hopefully would shift the burden of transition to sovereignty onto the institution, providing young governments a safety net in case independence proved to bring too many turbulences. In an environment where sovereign States plainly do not yet exist, economic cooperation rhetoric is redundant.

Imagine the CIS was created only to facilitate the divorce; then, over the first years of independence, the States, which would have by then elected their new officials, created a system of government and set up economic system, would come together for a genuine inter-State conference. This conference would have been comprised of heads of States that were elected by their citizens instead of those inherited from the Soviet republics governments, and it would have had an actual subject for discussion. Now that at least first steps had been done to demolish the Soviet legacy and to create national institutions, negotiation of ways and means to use the common past to the benefit of all interested States would have been very timely. And this time the negotiation should not have been limited to the former Soviet States; this time the CIS Charter could have created a truly regional organization open to all willing States subject to certain conditions. This time the Charter might have actually been drafted to cover the areas where meaningful cooperation was possible; it could have created institutions that were capable of facilitating cooperation; it could have created an organization whose members were not afraid of cooperation that might well turn into the hegemony of the stronger, but were willing to cooperate and knew exactly cooperation in which areas would have been beneficial to their States.

Instead, an all-encompassing Charter was adopted that covered everything and nothing. On the one hand, the States longed for preservation of some level of union for the sake of their own security; but on the other, these were newborn States that just as passionately wanted to be independent, to go their own way and to become recognized members of the international community. This ambivalence culminated in the CIS as we know it today.

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A closed organization based on just one subjective criterion cannot become a viable platform for successful international cooperation. And a committee created within such an organization uniting all members no matter their space capabilities cannot become a firm foundation for international space cooperation. All other flaws just keep adding up to this primary structural chasm in the CIS mechanism of cooperation.

Chapter 13. Bilateral Treaties: Practice of the United States and the Russian Federation

13.1 Overview

Bilateral treaties used to be the main source of international law until the end of the nineteenth century. Oftentimes different States concluded almost identical treaties on the subjects of commerce and navigation, thereby, incidentally establishing general rules of international law.¹ From this perspective, concurrent bilateral treaties can create general international law, while preserving their role as a legal basis for relations between its parties. International space law, having been established as an area of international law only in the middle of the twentieth century, was originally created in most part by multilateral treaties, not the bilateral practice of States. This, however, did not preclude bilateral treaties from becoming an important source of international space law later on. Indeed, nowadays bilateral treaties constitute a significant part of the *corpus juris spatialis*; States have concluded hundreds of bilateral agreements of varying degree of specificity and terms of application. These treaties, in spite of their limited influence on the establishment of the general legal regime of outer space, have played an important role in promotion and development of international space cooperation. Hence, a book aiming at a review of contemporary forms of international cooperation in outer space cannot omit the analysis of particularities of bilateral treaties.

In the present chapter the bilateral level of space cooperation will be examined using the example of bilateral treaties concluded by the United States and Russia, both among each other and with other States. Appreciating that the choice of any particular treaties – or treaties concluded by particular States – will always bear a mark of arbitrariness, the practice of these two States is suggested for two reasons: first, historically they were the first ones to enter the realm of outer space activities, where they became the two main rivals in the space exploration race, and, second, until today they preserve their statuses of space powers, albeit their dominance has been brought to an end years ago.

The chapter is structured as follows. First, general remarks regarding the bilateral treaties as a way of inter-State cooperation will be provided, paying attention to their role in the

¹ Cf., L.B. Sohn, Sources of International Law, 25 Ga. J. Int'l & Comp. L. 399 (1995-1996), at 401.

formation and development of international space law. Second, a representative selection of US and Russian space cooperation bilateral treaties will be analyzed, putting emphasis, first, on the legalistic characteristics of a treaty in question, and, second, on the ways and means of cooperation enumerated in the document. Such an analysis will allow determining preferred legal characteristics in attainment of different goals – because, obviously, despite different treaties' similarities, rarely a State is pursuing exactly the same set of goals in cooperation with different counterparts. Third, bilateral space treaties between the United States and Russia will be analyzed, starting from the early US-Soviet treaties all the way through to the documents currently in force. Although designation of bilateral treaties to one of the three categories of cooperation is straightforward, the six-criteria analysis will be completed to provide the most comprehensive review of these mechanisms of cooperation. The chapter will close by offering general conclusions regarding distinctive features of contemporary bilateral space cooperation and the benefits such cooperation provides for cooperating States.

13.1.1 Specifics of Bilateral Treaties

Manfred Lachs pronounced: "Treaties have been, still are and will remain the most effective instruments by which States acquire rights and enter into obligations in their mutual relations."² Today's wariness of new legally binding outer space treaties does not change the relevance of this statement since international – and to a certain extent national – space activities rely on the regime established by the treaties: universal, regional and bilateral. For centuries now international law scholars have been studying the theory of international treaties, arriving at conclusions of varying breadth, quality and relevance; but a majority of researches have acknowledged differences between multilateral and bilateral treaties both in questions of form and substance. Although 'rules of international treaties physics' – namely, definition, parties, entry into force, withdrawal and the like – apply to bilateral treaties in full, certain variations are present.

At the end of the nineteenth century Heinrich Triepel established the distinction between law-making treaties and treaties as contracts,³ which firstly was considered essential, but soon

² M. Lachs, *The Law of Outer Space: An Experience in Contemporary Law-Making* (2010), at 129.

³ *Supra*, para. 7.3.

became strongly criticized and eventually rejected.⁴ A modern legal argument instead of advocating a rigid distinction between the two types of treaties would lead to a more reasonable conclusion that actual treaties in their pure content rarely represent one or the other type of treaties, and that this rather arbitrary division – in the end, the interpreter is the one to judge whether the treaty in front of him belongs to a law-making or a contract type – is not so useful from the standpoint of modern international law. Different treaties cannot under the general principles of international law, and particularly the pacta sunt servanda principle, be structured hierarchically, giving preference to one type of obligations over the others. Nevertheless, authors suggest that there still exists intrinsic difference between the law-making and contractual provisions stipulated in the texts of the treaties, which might have especial importance in the context of codification conventions.⁵ Bilateral agreements, being an agreement between two particular States, tend to have more contractual provisions, but that does not mean that bilateral treaties are mere contracts. While repetitive bilateral practice, as noted above, can lead to creation of general legal norms, certain provisions of bilateral treaties, especially those formulated in broad, not project-specific terms, may well influence development of general space law serving as a blueprint for future cooperation between other States.

The Restatement (Third) of the Foreign Relations Law of the United States, notably, follows precisely the proposed approach. Article 101 defines international law as including law contained in widely accepted multilateral agreements. It continues, however, to pronounce that "undertakings of a particular state or international organization under a particular international agreement—for example, the obligation of a state under a bilateral tax treaty with another state—are binding under international law, but the substantive content of such undertakings is not international law applicable generally." Comment (f) to Article 102 further states: "Ordinarily, an agreement between states is a source of law only in the sense that a private contract may be said to make law for the parties under the domestic law of contracts." Hence, following an analogy to a domestic contract, a bilateral treaty establishing legal rights and obligations of its relevant provisions, might transform into a norm of customary law. Moreover, the qualification of the comment to 'ordinary' circumstances signals that not every bilateral treaty is of

⁴ See, V.D. Degan, Sources of International Law (1997), at 489.

⁵ *Id.* at 491.

contractual nature and that it might well include 'law-making' provisions on a par with more peculiar articles.

The importance of the distinction between the 'law-making' and 'contract' treaties and their respective provisions lies primarily in the political dimension of bilateral cooperation, not the legal one. Overall, international cooperation may be understood as a politico-legal concept: "It is a political concept in the sense of being based on the premise that, according to certain principles, States and their governments are motivated by a constructive and positive spirit of seeking peace through an organized international community in order to fundamentally change the nature of relations among independent States. In the legal concept, it arises from the implementation of the principle of international cooperation of States which has certain repercussions not only in the institutions established through this cooperation, but primarily in the content which jurists are obliged to give to this principle."⁶ It is suggested that in bilateral cooperation the political component is emphasized to a greater extent than on a regional or universal level in a sense that States are capable of construing their institutional relations paying less attention to the generally accepted content of the principle of cooperation, tailoring their relations to the unique institutional and political circumstances prompting cooperation. Thereby, the somewhat controversial distinction between the 'contract' and 'law-making' provisions serves as a legal pathway to political considerations in the course of legal analysis of bilateral treaties, allowing to pinpoint provisions that have been incorporated in the text in the course of political compromise - thus, being of a 'contract' nature - and those bearing greater 'lawmaking' importance in the context of the treaty.

Further, in the context of the analysis of bilateral cooperation, another theoretical proposition should be added. "If a treaty imposes upon the contracting parties the obligation to conclude with one another in the future a treaty on certain subject matters, two cases must be distinguished: the first treaty does, or does not, constitute and agreement on certain points. If the first treaty already constitutes an agreement on certain points, it is not a *pactum de contrahendo* (a treaty imposing upon a contracting party the obligation to conclude in the future another treaty on a certain subject matter), but a treaty imposing substantive obligations upon the contracting parties, the obligation to do something or to forbear from doing something, not the obligation to

⁶ B. Babovic, *The Duty of States to Cooperate with One Another in Accordance with the Charter: Principles of International Law Concerning Friendly Relations and Cooperation* (1972), at 289-90, cited in N. Chukeat, *International Cooperation for Sustainable Space Development*, 31 J. Space L. 315 (2005), at 316-17.

work towards or establish a treaty. It may be a so-called preliminary treaty, determining only certain important points, and requiring to be completed by a subsequent so-called definitive treaty, determining other, less important points. If the first treaty does not constitute an agreement on certain points, it establishes only the obligation to enter into negotiations for conclusion of a treaty, not the obligation to conclude a treaty."⁷ In other words, a preliminary treaty and a treaty of intent should be distinguished, whereas a definitive treaty, covering details of bilateral relations, might further complement both.

This distinction, however, does not affect the legal nature of a treaty and primarily serves as a tool for analysis of the scope of obligations asserted by the treaty and the expected ways of further cooperation between the parties. The legal dogma that "a treaty enters into force at the moment when the concordance of will of the parties has been reached"⁸ leads to a straightforward conclusion: once State-parties to the treaty have agreed on its terms, irrespective of whether the treaty covers every right and every obligation of both parties, or requires conclusion of an additional 'definitive' treaty, or enunciates an agreement to conclude another treaty that would set forth parties' respective rights and obligations, an agreement has been reached on these particular terms, and the treaty enters into force, unless the treaty states otherwise.

The value of bilateral agreements lies not only in their legally binding nature, but also due to a limited number of parties, in the fact that they can be more easily negotiated and amended, and can be structured to suit the special needs of particular bilateral relations.⁹ Primarily due to their flexibility bilateral treaties occupied a prominent place in international space cooperation from the first years of space era. For example, by 1963 the United States National Aeronautics and Space Administration (NASA) had cooperative ventures formalized through bilateral treaties with some forty countries regarding tracking stations, exchanges of personnel and joint space experiments.¹⁰ Bilateral cooperation between nations is even considered by some to be the primary method used to realize and promote international

⁷ H. Kelsen, *Principles of International Law* (1950), at 343.

⁸ *Id*. at 354.

⁹ Cf., S. Murphy, Role of Bilateral Defense Agreements in Maintaining the European Security Equilibrium, 24 Cornell Int'l L. J. 415 (1991), at 415-16.

¹⁰ See, R.N. Gardner, Cooperation in Outer Space, 41 Foreign Aff. 344 (1962-1963), at 358.

activities, especially in the field of space.¹¹ Although the primary role of bilateral treaties is subject to argument, they unquestionably have played a prominent part in advancement of international space cooperation.

Initially some authors, however, were rather critical of the role of bilateral treaties in space cooperation. "It is only within the U.N. that all the nations can consider *in toto* aerospace problems of law. Any other alternative, such as mere bilateral agreements between the United States and USSR, would be vastly inferior, owing to the global and extra-global nature of space flight. The aerospace adventure is unique in that it is an undertaking by mankind rather than by any one man or group of men. Only a forum that permits discussion by mankind rather than a group of men would be a plausible alternative. The U.N. most closely approaches this concept, idealistically."¹²

The cited view refers to the earlier distinction between 'law-making' and 'contract' treaties. Acquiescing that a singular bilateral treaty even between the dominating space powers can hardly substitute for universal treaties establishing a comprehensive legal regime, bilateral cooperation should not be regarded useless due to its limited scope of application. Bilateral treaties play a distinctive role in promotion of international cooperation, allowing States to tailor ways and means of collaboration to the unique circumstances of a particular project, or to the state of affairs – predominantly in a political, but also economic, sphere – between cooperating nations. The bottom line is that different treaties are performing different functions, and, hence, a treaty establishing a comprehensive legal regime, being unquestionably an important element in international regulation, cannot take over functions performed by bilateral treaties.

In 1963 a scholar observed that the United States agreements on space cooperation dealt with a variety of matters, including such matters as launching and recovery arrangements in the Cape Canaveral-Bahamas area, space vehicle observation, tracking and communication stations and facilities throughout the world, upper atmosphere research, and inter-continental testing in connection with experimental satellites.¹³ He prophetically predicted that further types of bilateral agreements would be added as further developments occur, including agreements

¹¹ See, N. Chukeat, International Cooperation for Sustainable Space Development, 31 J. Space L. 315 (2005), at 336.

¹² G.H. Staub, 1975: A Space Odyssey, 8 Int'l L. 41 (1974), at 54.

¹³ C.W. Jenks, *Space Law* (1965), at 82.

dealing with matters of guest payloads, operation of various types of satellites and facilities for launching from the territory of cooperating States.¹⁴

Today bilateral agreements "range from arrangements for technical assistance, education and training, financial assistance for space projects, to the establishment of a network of satellite communication systems. Cooperation extends from basic science to operational applications. They include bilateral cooperation between space-faring countries, and between the space-faring nations and developing nations, as well as between international organizations and developed countries or developing countries. However, there has been increasingly little bilateral cooperation between the developing countries."¹⁵ A recent paper voiced similar concerns: "Examination of bilateral agreements on space cooperation concluded by NASA reveals that their principal beneficiaries are again the advanced nations. The usefulness of these agreements to the United States' space effort is obvious. Without the agreements the U.S. would experience considerable difficulties in the conduct of its space activities. However, the technologically advanced partners of the United States also receive significant benefits through bilateral exchanges. [...] In contrast, the benefit accruing to the bilateral partners of the United States who have only their territory to offer in exchange are minimal."¹⁶

These opinions support the suggestion made earlier that bilateral treaties are the results of not only legal, but also to a great extent political concessions and trade-offs. In other words, it is unlikely that a State would sign a treaty that would bring exclusively negative consequences or would bring none at all. A more plausible explanation is that a less developed partner-State that appears to receive minimal benefits in space area would receive benefits elsewhere. Stopping here to avoid getting into political speculations, it is suggested in evaluation of bilateral treaties to consider not only immediate short-term results or aims of the parties, but also to reflect on more far-reaching consequences of cooperation promoted by a particular treaty. Although the exact scope of such consequences can only be assumed, and, legally speaking, they do not affect the nature of cooperation, they might bear importance for more general evaluations.

With these preliminary theoretic considerations in mind, the analysis of specific bilateral treaties will be commenced, starting with those concluded by the Russian Federation, followed

¹⁴ *Id*. at 86.

¹⁵ N. Chukeat, International Cooperation for Sustainable Space Development, 31 J. Space L. 315 (2005), at 337.

¹⁶ I.A. Vlasic, "The Relevance of International Law to Emerging Trends in the Law of Outer Space," in C.E. Black and R.A. Falk (eds.), *The Future of the International Legal Order, Volume 2: Wealth and Resources* (2015), at 308-09.

by the analysis of the United States bilateral practice and the bilateral cooperation of the two States among each other.

13.1.2 Russian Bilateral Treaties

Russia has concluded fifty-six bilateral treaties on space cooperation; in addition, it has signed three protocols and five memoranda of understanding. In the course of the present analysis the following bilateral agreements will be reviewed:

- An Agreement between the Government of the Russian Federation and the Government of the Republic of Belarus on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes, of March 15, 2011, entered into force December 26, 2012;
- Agreement between the Government of the Russian Federation and the Government of the Republic of Belarus on Cooperation in Use and Development of the Russian Global Navigational Satellite System GLONASS, of December 13, 2013, entered into force July 2, 2014;
- Agreement between the Government of the Russian Federation and the Government of the Republic of Indonesia on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes, of December 1, 2006, entered into force March 1, 2010;
- Agreement between the Government of the Russian Federation and the Government of the Republic of Indonesia on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes, of February 21, 2011, entered into force November 21, 2014;
- Agreement between the Government of the Russian Federation and the Government of the Republic of Chile on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes, of November 19, 2004, entered into force May 8, 2008;
- Agreement between the Government of the Russian Federation and the Government of the French Republic on Long-Term Cooperation in Development, Creation and Use of Rocket-Launchers and in Placement of the Rocket-Launcher "Soyuz-ST" in the Guiana Space Center, of November 7, 2003, entered into force April 1, 2007;
- Agreement between the Government of the Russian Federation and the Government of the Republic of Kazakhstan on Cooperation in Creation and Launch of the Kazakh Communication and Broadcasting Satellite "KAZSAT-2", of July 16, 2011, entered into force December 2, 2011;

 Agreement between the Government of the Russian Federation and the Government of the United States of Mexico on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes, of May 20, 1996, entered into force November 29, 1996.

An Agreement between the Government of the Russian Federation and the Government of the Republic of Belarus on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes¹⁷ is one of the latest additions to the bilateral cooperative network of Russia and is exemplary of the approach Russia is using in its bilateral space relations. It should be recalled that Belarus has not inherited a part of the former Soviet space complex and cannot be considered particularly active in exploration and use of outer space. Nevertheless, Russia concluded this treaty, followed by another treaty, which will also be discussed further, with a less-developed country not possessing a national space agency.¹⁸

Modern Russian bilateral treaties traditionally open with an article providing elaborated definitions of the terms used, and space treaties are no exception. Article 1 of the Agreement with Belarus defines 'cooperative activities' as follows: "Activities in furtherance of the present Agreement, connected to exploration and use of outer space and application of space technology for peaceful purposes, which is defined as such in agreements (contracts), including cooperative activities concerning protected goods and technologies." So at the outset it is unequivocally stipulated that the Agreement only establishes the most general legal basis for future cooperation that should be detailed in separate agreements and contracts.

Article 4, defining the scope of cooperation, enumerates ultimately all possible spheres of cooperation, leaving open the opportunity for addition of other areas of cooperation subject to agreement of the Parties. Article 5 lists forms of cooperation, which include planning and performance of cooperative programs, exchange of scientific and technical information, facilitation of access to governmental space exploration and use programs, utilization of terrestrial objects and systems for space launches, organization of professional education, exchange of personnel, holding of symposiums, conferences and the like. An open-ended clause potentially allows for addition of other forms of cooperation. Overall, the Agreement is not

¹⁷ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii I Pravitelstvom Respubliki Belarus' o Sotrudnichestve v Oblasti Issledovaniya I Ispolzovaniya Kosmicheskogo Prostranstva v Mirnykh Zelyakh [An Agreement between the Government of the Russian Federation and the Government of the Republic of Belarus on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes] of March 15, 2011, entered into force December 26, 2012, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 8 2013.

¹⁸ A governmental agency designated by the Republic of Belarus to implement provisions of the Agreement is the National Academy of Sciences.

aimed at any particular type of cooperation, but rather constitutes a basis for any cooperation that might be commenced in future. Essentially, this is a framework agreement.

Following provisions of the Agreement prove the correctness of the conclusion made. Financing of cooperative projects remains a responsibility of each Party and neither Party bears any financial responsibility or should be considered obliged to provide financing of cooperation. A complete absence of any kind of financial obligations can hardly result in fruitful cooperation, especially in such a tremendously costly endeavor as space exploration is; financial arrangements, therefore, are left for settlement in separate project-specific agreements referred to earlier in the Agreement. Terms and conditions of information exchange asserted in Article 9 are of a fairly unspecific nature as well, primarily calling for prompt access to data and information obtained during cooperative activities and prohibiting transfer of such information to third parties unless the Parties agree otherwise. References are made to provisions of national laws of respective Parties in discharge of the obligation to protect confidential and sensitive information, and to additional agreements between the Parties and their cooperating agencies with respect to special ways of treatment of information, should such become necessary.

Article 10, providing for protection of property and technology, follows the same structure, declaring the need to secure necessary protection but leaving details to national regulations of the Parties and additional agreements. Surprisingly, the Agreement does not provide for any relaxation of export control requirements in transfer of goods, services and technologies used in cooperative programs, which are notoriously stringent in former Soviet States. Addendum 1 to the Agreement sets forth export control requirements in greater detail, including certification, marking, transportation and customs clearance details. Articles 11 and 12 provide for a broadly construed tax and customs exemption and a cross-waiver of liability. Article 13 suggests that the Parties shall strive to settle all disputes in a friendly manner through diplomatic channels; in case a dispute cannot be resolved, it shall be referred to an *ad hoc* arbitration.

A year after the Agreement had come into force, the Parties concluded another agreement, setting forth the legal basis for cooperation in use and development of the Russian global navigational satellite system GLONASS.¹⁹ This Agreement stipulates that the Parties are

¹⁹ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii I Pravitelstvom Respubliki Belarus' o Sotrudnichestve v Oblasti Ispolzovaniya I Razvitiya Rossiyskoi Globalnoi Navigazionnoi Sputnikovoi Sistemy GLONASS

to be guided by the provisions of the 2011 Agreement and aims at "creation of an organizationallegal basis for mutually beneficial cooperation in particular areas of joint activities in use and development of the system GLONASS and of appropriate satellite navigational technologies."²⁰ To this end, the Parties agreed to cooperate in development of GLONASS additional facilities that would allow using the system by end users of navigational signals on the territory of Belarus, to cooperate in development and manufacturing of navigational equipment, to cooperate in promotion of competitive goods and services on Russian, Belarusian and international markets, and to cooperate in development of navigational and informational services based on the system GLONASS, at the same time ensuring their compatibility. Additional areas of cooperation might be included subject to agreement of the Parties or of their appropriate agencies.

Further articles of the Agreement essentially reiterate the same general guidelines as the 2011 Agreement, albeit more concisely, regarding the designated cooperating agencies, forms of cooperation, financial arrangements, property protection, exchange of information, intellectual property and liability. Toward the end, Articles 12 and 13 establish agreement-specific provisions. Article 12 stipulates that the system GLONASS is under the jurisdiction and control of the Russian Federation, confirms that Russia retains all rights on the radio frequency spectrum allocated by the International Telecommunication Union, and asserts that the Belarusian satellite facilities and terrestrial infrastructure located on the territory of the Republic of Belarus shall be under the jurisdiction of Belarus. Article 13 states that Russia provides to the Republic of Belarus access to signals of medium precision free of charge, and that it shall not suppress precision of location determination. In turn, Belarus agrees to provide an opportunity to use information obtained using system-related equipment under its jurisdiction. Finally, it is stated that questions of utilization of the signal of high precision shall be considered in the course of military cooperation, and, thus, shall be subject of a separate agreement. Overall, this Agreement is using fairly broad terms in setting forth the legal regime of cooperation with respect to a particular sphere of space applications, in this sense following the pattern of the 2011 Agreement.

[[]Agreement between the Government of the Russian Federation and the Government of the Republic of Belarus on Cooperation in Use and Development of the Russian Global Navigational Satellite System GLONASS] of December 13, 2013, entered into force July 2, 2014, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 2 2015.

²⁰ Article 2 of the Agreement.

Generally, bilateral agreements on cooperation in exploration and use of outer space concluded by Russia in the twenty-first century follow the same pattern as the 2011 Agreement with the Republic of Belarus. The Agreement with Indonesia in essence reiterates the same principles of cooperation, although it introduces certain formatting and structural changes.²¹ Particularly, it does not contain an article defining terms used in the agreement. Article 1 of the treaty defines the goal of cooperation as "establishment of organizational and legal basis for mutually beneficial cooperation in particular areas of joint activities in exploration and use of outer space and application of space technology for peaceful purposes." The article goes on to enumerate four methods of achievement of the stated goal, which effectively reiterate in a more concise form provisions of Article 5 'Forms of Cooperation'.

The second difference from the 2011 Agreement is inclusion of Article 2 entitled 'Legal Basis', which reads: "Cooperation in furtherance of the present Agreement is to be performed in accordance with national laws of the Parties, in compliance with general principles and norms of international law and without prejudice to performance by the Parties of their obligations and entertainment of their rights in accordance with other international treaties, to which they are parties." Such a provision is not common in modern Russian bilateral treaties, and is most likely to be a concession to demands of Indonesia. Recently the Constitutional Court of the Russian Federation in its ruling explained that despite provisions of the Constitution to the contrary, principles and norms of international law do not apply directly on the territory of the Russian Federation and do not have priority over national laws.²² A bill proposing amendments to the

²¹ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii I Pravitelstvom Respubliki Indoneziya o Sotrudnichestve v Oblasti Issledovaniya I Ispolzovaniya Kosmicheskogo Prostranstva v Mirnykh Zelyakh [An Agreement between the Government of the Russian Federation and the Government of the Republic of Indonesia on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes] of December 1, 2006, entered into force March 1, 2010, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 9 2010. ²² Postanovlenie Konstituzionnogo Suda Rossiiskoi Federatsii "Po Delu o Proverke Konstitsuonnosti Polozheniy Statiy 1 Federalnogo Zakona "O Ratifikatsii Konventsii o Zashite Prav Cheloveka I Osnovnikh Svobod I Protokolov k Nei", punktov 1 I 2 statiy 32 Federalnogo Zakona "O Mezhdunarodnikh Dogovorakh RF", chastey pervoi I chetvertoy statiy 11, punkta 4 chasti chetvertoi statiy 392 Grazhdanskogo Prozessualnogo Kodeksa RF, chastei 1 I 4 statiy 13, punkta 4 chasti 3 statiy 311 Arbitrajnogo Prozessualnogo Kodeksa RF, chastei 1 I 4 statiy 15, punkta 4 chasti 1 statiy 350 Kodeksa Administrativnogo Sudoproizvodstva RF I punkta 2 chasti chetvertov statiy 413 Ugoglovno-Prozessualnogo Kodeksa RF v Svyazi s Zaprosom Gruppi Deputatov Gosudarstvennoy Dumy" N 21-P ot 14.07.2015 [Decision of the Constitutional Court of the Russian Federation "On the Case of Examination of Compliance with the Provisions of the Constitution of Provisions of Article 1 of the Federal Statute "On Ratification of the Convention on Protection of Human Rights and Main Freedoms and Protocols", Paragraphs 1 and 2 of Article 32 of the Federal Statute "On International Treaties of the Russian Federation", parts one and four of article 11, paragraph 4 of part four of article 392 of the Civil Procedural Code of the Russian Federation, Parts 1 and 4 of Article 13, paragraph 4 of part 3 of article 311 of the Code of Arbitration Procedure of the Russian Federation, parts

Constitution to repeal the contentious provision has already been proposed and is likely to be adopted within a year; therefore, the cited provision, even in those few Russian treaties containing one, is likely to lose its force on the national plane, although in accordance with Article 27 of the Vienna Convention on the Law of Treaties that would not alter international obligations of Russia on the international plane.

Article 14 sets forth a fairly unspecified obligation of the Parties to 'facilitate' immigration support to those citizens of the other contracting Party who arrive to or reside in the respective State performing functions in accordance with the Agreement. It should be noted that the wording used does not necessarily give any preference to the citizens of the contracting States, and suggests that this obligation is expected to be performed in a good-faith manner, but hardly more. Quite clearly, it is not a waiver of immigration requirements or even their relaxation. Such a provision is absent from the 2011 Agreement with Belarus due to participation of both Russia and Belarus in the Customs Union as established the Treaty on Eurasian Economic Union,²³ which gives the right to the citizens of the two countries to reside and work in the other country without the need to comply with any immigration requirements. Overall, the enumerated discrepancies are not of a substantive nature, and rather reflect preferences of the contracting Parties in formulation of the treaties.

Some bilateral treaties, including those concluded with Cuba and Chile, while following a similar structure and providing the legal framework for future cooperation in most broad terms, add provisions aiming at creating an institutional basis for communication between cooperating agencies of the parties. Article 6 of the Agreement with Cuba, for example, reads: "The Parties, cooperating agencies and designated organs and organizations may create joint working groups in order to work through the details of particular aspects of cooperative activities, prepare proposals on new areas and forms of such activities and also on organizational methods and ways for development of mechanisms of cooperation within the framework of the present Agreement."²⁴ Further, both agreements include an article entitled 'Expansion of the Forms of

¹ and 4 of article 15, paragraph 4 of Part 1 of Article 350 of the Code of Administrative Procedure of the Russian Federation in Connection to the Request of the Group of members of the State Duma of July 14, 2015], pravo.gov.ru.

²³ Dogovor o Evraziyskom Ekonomicheskom Souyze [The Treaty on Eurasian Economic Union] of May 29, 2014, entered into force on January 1, 2015, available at the official website of the Russian Foreign Ministry archive.mid.ru.

²⁴ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii i Pravitelstvom Respubliki Kuba o Sotrudnichestve v Oblasti Issledovaniya I Ispolzovaniya Kosmicheskogo Prostranstva v Mirnykh Zelyakh [An Agreement between the

Cooperation' requiring the Parties and their cooperating agencies to provide support in the development of different forms of cooperation and collaboration between individuals and companies of both States, and to strive toward possible utilization of results of their work in performance of cooperative activities undertaken in the furtherance of the Agreement.²⁵

Both Agreements also include a separate article outlining the need for and procedure of bilateral consultations between the Parties and their cooperating agencies or other designated organs. These consultations might consider all types of questions, ranging from ways and means capable of strengthening cooperation in general to a particular recommendation regarding performance of a certain project. Government-level consultations might also conclude with adoption of additional agreements elaborating the general principles of cooperation or amending legal and organizational basis of joint activities.²⁶

The mechanism of consultations is widely used by States in their bilateral relations, and space cooperation is no exception. With respect to bilateral air agreements an eminent scholar enumerated several reasons behind the importance of consultations requirements and some of them may be adapted to the space environment. First, consultations between the contracting States enable them to control and supervise operation of the agreement and observance of its terms by the designated implementing agencies of both parties. Second, the consultations mechanism serves as the preliminary to arbitration or another dispute resolution mechanisms to supervise activities of the implementing agencies in the course of implementation of the agreement, and resolution of any possible disagreements between the implementing agencies or between an implementing agency and a State.

Third, consultations are used as means of elevating an issue to the inter-State level. "In many ways, this third type of consultation is very similar to the second one, except that it is perhaps a little less structured. ... Consultation here is used merely as means either to enable a contracting State to obtain further details about a given situation and, if necessary, to make its

Government of the Russian Federation and the Government of the Republic of Indonesia on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes] of February 21, 2011, entered into force November 21, 2014, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 3 2015. ²⁵ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii I Pravitelstvom Respubliki Chily o Sotrudnichestve v Oblasti Issledovaniya I Ispolzovaniya Kosmicheskogo Prostranstva v Mirnykh Zelyakh [An Agreement between the Government of the Russian Federation and the Government of the Republic of Chile on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes] of November 19, 2004, entered into force May 8, 2008, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 1 2009, Article VIII.

²⁶ Article 12 of the Agreement with Cuba, and Article XII of the Agreement with Chile.

own views known to the other Party, or to keep the other Party informed of a given situation so that, if it so wishes, it can make its views known. It is a way of opening the channels of communication between the contracting States in matters which otherwise might be treated as falling solely within the competence of one of the Parties alone. The purpose of consultation in this instance is, therefore, more the avoidance than the resolution of disputes."²⁷ Four, consultations may be used for the purpose of reviewing changed circumstances as a matter of good will. Finally, they may be used for the purpose of changing the agreement. Also in some cases, depending on particular provisions of the treaty in question, consultations serve as means for settlement of disputes and a precondition to the referral of a dispute for resolution in accordance with agreed upon procedures.

In case of the Russian treaties, all these reasons behind inclusion of the consultations requirement are present except for its role as a preliminary step in the dispute resolution process. The dispute settlement mechanism is set forth in great detail in the text of the Agreement; moreover, the article establishing the consultations requirement does not provide for the dispute settlement role of either government- or agency-level consultations. In the end, the mechanism of consultations is a helpful tool in promotion of friendly relations of the Parties to the agreement, providing a flexible mechanism of a less formal, compared to the diplomatic channels, method of communication.

Now two treaties concluded to perform a particular project will be briefly reviewed. It should be noted, though, that this type of treaties is comparatively rare in Russian practice since the overwhelming majority of the space treaties follow the pattern of the agreements examined above.

One example of a project-oriented space treaty is the Agreement between France and Russia on long-term cooperation in development, creation and use of rocket-launchers and in placement of the rocket-launcher "Soyuz-ST" in the Guiana Space Center.²⁸ In addition to

²⁷ B. Cheng, *Role of Consultation in Bilateral International Air Service Agreements, as Exemplified by Bermuda I and Bermuda II*, 19 Colum. J. Transnat'l L. 183 (1981), at 190.

²⁸ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii i Pravitelstvom Franzuzskoy Respubliki o Dolgosrochnom Sotrudnichestve v Oblasti Razrabotki, Sozdaniya I Ispolzovaniya Raket-Nositeley I Razmesheniya Raketi-Nositelya "Souyz-ST" v Gvianskom Kosmicheskom Tsentre [An Agreement between the Government of the Russian Federation and the Government of the French Republic on Long-Term Cooperation in Development, Creation and Use of Rocket-Launchers and in Placement of the Rocket-Launcher "Soyuz-ST" in the Guiana Space Center] of November 7, 2003, entered into force April 1, 2007, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 6 2007.

general provisions on financial arrangements, a cross-waiver of liability, immigration and customs matters, information exchange, intellectual property protection and technologies protection, the Agreement provides detailed definitions of all terms, including the technical ones, sets forth a comprehensive list of rights and responsibilities of cooperating agencies, and enunciates the procedure of rocket-launcher registration and management. Furthermore, Article 17 stipulates: "Due to the long-term, complex and evolutionary nature of cooperating agencies, shall inform each other of changes that might affect the process of cooperation, and shall agree on joint consultations with regard to all questions arising in the process of cooperation."

Another project-specific agreement was concluded with Kazakhstan in 2011.²⁹ Formally the goal of this Agreement is a cooperative development and launching of a Kazakh satellite to the geostationary orbit; in effect, the Agreement requires the Russian space industry to manufacture this satellite, launch it from Russian launching facilities, provide orbital and radio frequency slots, which were allocated to Russia by the International Telecommunication Union, necessary for operation of this satellite, and, finally, provide tracking and monitoring facilities. Kazakhstan, in turn, is required to register the satellite in accordance with the 1975 Registration Convention. The Agreement is silent about financial arrangements between the Parties, its cooperating agencies or companies charged with actual manufacturing of the satellite. Recalling that States participating in bilateral agreements are rational actors, it is reasonable to suggest that Russia should gain some benefits from execution of this Agreement, even if not in the form of a payment for the provided goods and services.

Concluding the overview of selected Russian bilateral treaties on cooperation in exploration and use of outer space, it is clear that in most cases the treaties should be characterized as framework agreements enunciating the legal and organizational basis for future cooperation in most general terms. At the same time, these treaties provide certain rights and obligations of the parties, thereby not allowing classifying them as treaties of intent. On the one hand, they do provide for a need to conclude separate agreements with respect to particular

²⁹ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii i Pravitelstvom Respubliki Kazakhstan o Sotrudnichestve v Oblasti Sozdaniya I Zapuska Kazakhstanskogo Sputnika Svyazi I Veschaniya "KAZSAT-2" [An Agreement between the Government of the Russian Federation and the Government of the Republic of Kazakhstan on Cooperation in Creation and Launch of the Kazakh Communication and Broadcasting Satellite "KAZSAT-2"] of July 16, 2011, entered into force December 2, 2011, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 12 2012.

projects and programs. On the other, however, they specify rights and obligations of the parties in use of data obtained during cooperative activities, in protection of national property and others, thereby, making their classification as preliminary treaties in the dichotomy advocated by Kelsen,³⁰ or as framework treaties as it is suggested labeling them, more justified.

13.1.3 United States Bilateral Treaties

In the course of the present analysis the following bilateral agreements will be reviewed:

- Framework Agreement Between the Government of the United States of America and the Government of the Argentine Republic on Cooperation in the Peaceful Uses of Outer Space of October 25, 2011, entered into force July 30, 2013;
- Agreement between the United States of America and Japan effected by exchange of notes on Tracking Station in Okinawa, entered into force September 2;
- Agreement between the United States of America and Australia on Tracking Stations: Transit Navigational Satellite Program effected by exchange of notes, entered into force June 5, 1961;
- Agreement between the United States of America and Senegal effected by exchange of notes on Space Cooperation: Vehicle Tracking and Communication Facility, entered into force February 5, 1981;
- Agreement between the United States of America and the Kingdom of Norway for Cooperation in the Civil Uses of Outer Space with annex. Signed October 20, 2000, and November 14, 2001; Entered into force November 14, 2001;
- Framework Agreement between the United States of America and the Kingdom of Sweden for Cooperative Activities in the Exploration and Use of Outer Space for Peaceful Purposes. Signed October 14, 2005; Entered into force October 14, 2005;
- Implementing arrangement between the National Aeronautics and Space Administration of the United States of America and the Swedish National Space Board of the Kingdom of Sweden for Cooperation in Aeronautic and Space Research Using Nanosatellite Technologies. Signed at Washington and Solna May 10 and 19, 2011; Entered into force May 19, 2011;

³⁰ Cf., H. Kelsen, Principles of International Law (1950), at 343.

- Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Norwegian Space Centre of the Kingdom of Norway on the Interface Region Imaging Spectrograph (IRIS) Mission. Signed at Washington and Oslo December 14, 2010 and January 10, 2011; Entered into force January 10, 2011;
- Memorandum of Understanding between the National Aeronautics and Space
 Administration of the United States of America and the National Commission on Space
 Activities of the Argentine Republic Concerning the Flight of the SAC-A Mission on the
 Shuttle. Signed at Buenos Aires October 16, 1997; Entered into force October 16, 1997;
- Agreement between the National Aeronautics and Space Administration of the United States of America and the National Institute of Aeronautics and Space of the Republic of Indonesia for Cooperation on the Southeast Asia Composition, Cloud, Climate Coupling Regional Study. Signed at Washington and Jakarta May 31 and June 19, 2012; Entered into force June 19, 2012;
- Agreement between the Government of the United States of America and the Government of the Republic of Indonesia on Scientific and Technological Cooperation. Signed at Jakarta March 29, 2010; Entered into force February 16, 2011;
- Space Cooperation Agreement between the United States of America and Ukraine. Signed March 21, 2008; Entered into force January 22, 2009.

Historically, "America's first partner in a medium-scale enterprisory activity was Great Britain: together they launched the first "international satellite," built and sent aloft by the United States, but with important instruments engineered by British scientists. Japan participated in the next joint satellite launching effort, and a joint space undertaking with Canada sent the "Alouette" aloft. Italy, another member of the Western Bloc, has participated with NASA in rocket probes, as have Sweden, Britain, and Australia; and NASA has plans for joint space programs with Japan, Norway, Pakistan, India and France."³¹ Today, a majority of US bilateral space treaties have been concluded with developed States and States actively participating in space activities. Despite the justified criticism of such a state of affairs, emphasizing the need to include less developed nations in space cooperation and, thus, enjoyment of benefits of space-

³¹ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 877.

related technologies,³² dominating cooperation with developed nations cannot be considered surprising.

It has been suggested that four factors – culture, exposure to crisis, past experience and dedication to concepts of world public order – have influenced the forms of bilateral cooperation and partners States are choosing in their bilateral relations.³³ Culture and past experience, along with public order values, seem the most relevant in the space cooperation context. One would doubtless find cooperation more fruitful and less complicated when a partner shares similar cultural, social and economic values, and due to his experience has a comparable level of expertise, or at least matching capabilities. The presence of just one factor, though, would not be enough for a truly successful cooperation. In 1962 the Soviet Union and the United States concluded the Bilateral Space Agreement, which, however, was not considered by its contemporaries as a basis for full-scale cooperation between then the only two space powers in the world,³⁴ and did not bring to life broad cooperation between the two States in the years that immediately followed its conclusion. So despite the matching past experience – that is space expertise – ideological and cultural differences were too vast to allow meaningful joint work.

According to the United States State Department 2013 edition of the Treaties in Force with 2014 Supplement,³⁵ the United States has sixty-eight bilateral space cooperation treaties in force. It comes as no surprise that bilateral US treaties with developing nations creating a general framework for cooperation are non-existent. Approximately another fifty US bilateral agreements provide for cooperation using space-based technology, including agreements on scientific and technical cooperation, telecommunications, agreements on mutual legal assistance, which, strictly speaking, should not be considered space-specific treaties.

The compendium distinguishes a separate category of treaties concerning tracking stations that accounts for nine treaties and one memorandum of understanding concluded with the United Kingdom regarding the placement of the US tracking station in the Cayman Islands. The majority of these agreements were concluded in the 1960s, and they vary in the scope of parties' rights and obligations in establishment and operation of tracking stations and necessary

³² *Cf.*, I.A. Vlasic, "The Relevance of International Law to Emerging Trends in the Law of Outer Space," in C.E. Black and R.A. Falk (eds.), *The Future of the International Legal Order, Volume 2: Wealth and Resources* (2015), at 308-09.

³³ See, M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, Law and Public Order in Space (1963), at 877.

³⁴ Cf., C.W. Jenks, Space Law (1965), at 86.

³⁵ Available on WestLaw Next.

facilities. The agreement with Japan, for example, provides that the Government of Japan will establish the 'Okinawa Satellite Tracking Station', as the branch office of the Japanese National Space Development Center.³⁶ The agreement with Australia stipulates that the program will be conducted by cooperating agencies of each government, allows for participation of the cooperating agency of Australia in operation of the established facilities, and specifies terms and conditions of necessary personnel admission to Australia and their fiscal and customs privileges.³⁷ The agreement with Senegal, in addition to designation of cooperating agencies and provision for the United States personnel and equipment fiscal and immigration privileges, asserts the United States' obligation to train six Senegalese technicians in station operation and maintenance, to employ to the greatest extent possible Senegalese contractors in construction of tracking station facilities, and to make the facilities available for visits by general public.³⁸

Strictly speaking, these and other tracking stations agreements are not outer space bilateral treaties since they regulate earthbound activities. While construction of terrestrial tracking stations is necessary for performance of outer space activities, outer space activities, however, should not as per provisions of these agreements, include the counter-party of the agreement providing its territory for the construction of a tracking station. In other words, cooperation of the two States does not extend to outer space.

These agreements are, though, a notable example of trade-offs involved in a bilateral negotiations process. It has been argued above that it is highly doubtful that any State would conclude a treaty detrimental to its interests; and each of the three tracking stations treaties provides for some benefits of the hosting State. Australia is entitled to participation in the project along with the United States and is allowed to get access to certain derived information; Japan ultimately obtains operational rights of the facility through the specially established entity; Senegal, apparently due to lack of its interest in direct participation in the project, obtained financial and educational preferences. While these benefits are not exactly equal in value, bilateral treaties are not supposed to provide equal value to each party of each treaty.

³⁶ Agreement between the United States of America and Japan effected by exchange of notes on Tracking Station in Okinawa, entered into force September 2, 1968, T.I.A.S. No. 6558, 19 U.S.T. 6011.

³⁷ Agreement between the United States of America and Australia on Tracking Stations: Transit Navigational Satellite Program effected by exchange of notes, entered into force June 5, 1961, T.I.A.S. No. 4779, 12 U.S.T. 789.

 ³⁸ Agreement between the United States of America and Senegal effected by exchange of notes on Space
 Cooperation: Vehicle Tracking and Communication Facility, entered into force February 5, 1981, T.I.A.S. No.

^{10088, 33} U.S.T. 1028.

There are two types of bilateral space treaties concluded by the United States: general treaties establishing the legal and organizational framework for cooperation, which are concluded on the governmental level, and project-specific agreements concluded between the cooperating agencies. The first type of agreements may be designated either an 'Agreement' or a 'Framework Agreement'; the name of the treaty does not affect the substance of its provisions. The second type of agreements may be designated an 'Agreement', a 'Memorandum of Understanding', or an 'Implementing Arrangement'; here the choice of the agreement's title also does not affect its substance. A form of a memorandum of understanding was traditional for agreements concluded in the twentieth century, while a form of an implementing arrangement is of a more recent origin and is used to conclude inter-agency agreements with the nations the United States has bilateral treaties establishing the general legal framework for cooperation. An inter-agency agreement on space cooperation is designated an 'Agreement' when it aims at regulation of project-specific relations with a State the United States does not have a general treaty with on cooperation in exploration and use of outer space.

Treaties concluded on the inter-governmental level and establishing the general legal and organizational framework of cooperation in exploration and use of outer space, which will be further referred to as 'framework treaties', generally follow a uniform structure. One of the earlier framework treaties that still remains in force is the Agreement with Norway.³⁹ It has twelve articles and in general terms regulates customs and immigration matters, the procedure of exchange of technical data, and goods and intellectual property rights. Article 1 'Scope of Activities' at the outset asserts that the Parties "shall identify areas of mutual interest and seek to develop cooperative programs in the peaceful uses of outer space and shall work closely together to this end." Recalling the two sides of the principle of cooperation: the 'obligation of result' and the 'obligation of effort', it should be concluded that this Agreement eloquently sets forth the 'obligation of effort' in cooperation between the contracting States.

In other words, although this is a treaty concluded specifically to promote cooperation between the two States, it does not go as far as to mandate cooperation in exploration and use of outer space in general; rather, it seeks to confirm the existing 'obligation of effort' and the existing mutual interest in cooperation, and to create the legal basis for cooperation on particular

³⁹ Agreement between the United States of America and the Kingdom of Norway for Cooperation in the Civil Uses of Outer Space with annex. Signed October 20, 2000, and November 14, 2001; Entered into force November 14, 2001, T.I.A.S. No. 13172. Extension of October 23, 2006, T.I.A.S. 13172.

projects. The 'obligation of result' comes into existence only upon conclusion of inter-agency project-specific agreements. Russian bilateral space treaties due to their unspecific, even generic nature also cannot be considered as creating the 'obligations of result', leaving this task to further project-specific additional agreements. Thereby, at least in this regard both States are following the same method of structuring bilateral space cooperation.

Further, Article 1 of the Agreement with Norway enumerates areas and forms of possible cooperation, leaving the list open for possible extension should the Parties agree so. Article 2 designates the implementing agencies and requires that "the specific terms and conditions for Programs shall be set forth in implementing arrangements between the implementing agencies," which might include provisions related to the nature and scope of a particular program, individual rights and responsibilities of the agencies, financial, technical and other arrangements.

Implementing arrangements concluded between the States bound by framework treaties, despite their obviously different subjects, are arranged in similar ways. They are structured into twelve articles, which set forth a detailed description of the cooperative project, exact responsibilities of each implementing agency, intellectual property rights, particularities of the cross-waiver of liability as applied to the project, rules of data and goods exchange, and provide detailed contact information of the participating agencies. Each implementing arrangement includes an article entitled 'Release of Results and Public Information', requiring that the implementing agencies make the final results obtained from the cooperative project "available to the general scientific community through publication in appropriate journals or by presentations at scientific conferences as soon as possible and in a manner consistent with good scientific practices."⁴⁰

This provision is repeated verbatim in every project-specific agreement of the United States. Acknowledging that the cooperating States preserve the right to decide what final results can and should be made available to the general public, still the information release requirement is of great moral and legal importance. The principle that the exploration and use of outer space

⁴⁰ Article 6 of the Implementing arrangement between the National Aeronautics and Space Administration of the United States of America and the Swedish National Space Board of the Kingdom of Sweden for Cooperation in Aeronautic and Space Research Using Nanosatellite Technologies. Signed at Washington and Solna May 10 and 19, 2011; Entered into force May 19, 2011, T.I.A.S. No. 11-519. Article 8 of the Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Norwegian Space Centre of the Kingdom of Norway on the Interface Region Imaging Spectrograph (IRIS) Mission. Signed at Washington and Oslo December 14, 2010 and January 10, 2011; Entered into force January 10, 2011, T.I.A.S. No. 11-110.

shall be carried out for the benefit and in the interests of all countries finds one of its possible practical applications in this requirement.⁴¹ The Draft Code of Rules on the Exploration and Uses of Outer Space prepared by a Study Group of the David Davies Memorial Institute of International Studies in 1962 specifically declared that in the exploration and use of outer space States and international bodies should arrange for the greatest practicable interchange of scientific information and personnel.⁴²

Eminent scholarly work stated: "The importance, however, of enlightenment as an objective transcends educational boundaries; knowledge is increasingly regarded as a power and respect asset in the arena of international politics. It is therefore safe to predict that one of the primary objectives of all participants in the world power and social processes will in the foreseeable future be directed toward the acquisition of new knowledge through both direct participation in space exploration as well as through demands for sharing in the experience gained by others. The many immediately practical applications of the new knowledge gained from space activities add, on any scale of demanded values, a special sense of urgency to this objective."⁴³ A blanket inclusion of the scientific information release requirement proves that enlightenment has taken a prominent place in objectives pursued by the United States in the exploration and use of outer space.

All project-specific agency-level bilateral agreements regardless of their designation reproduce a similar structure. The Memorandum of Understanding with Argentina Concerning the Flight of the SAC-A Mission on the Shuttle,⁴⁴ for example, mirrors the structural approach used in the reviewed implementing arrangements, adding several provisions peculiar to the undertaken project. Since the SAC-A is a small satellite, provisions regarding its management and registration had to be added in the text of the Memorandum.

⁴¹ J. Gabrynowicz suggested that the United States interprets 'benefit' of Art. I of the Outer Space Treaty as: "All nations may have access to data." So data is understood as data that is being shared. This policy is incorporated in both multilateral and bilateral treaties. *See*, J. I. Gabrynowicz, Keynote: *The Legal Evolution of a 'Use' of Space: The Case of Remote Sensing*, 58th IISL Colloquium on the Law of Outer Space, Technical Programme "7th Nandasiri Jasentuliyana Keynote Lecture on Space Law and Young Scholars Session," IAC-15.E7.1.1. Not yet published as of November 2015. Thereby, this is one example of this policy implementation.

⁴² C.W. Jenks, *Space Law* (1965), at 151.

⁴³ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 23.

⁴⁴ Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the National Commission on Space Activities of the Argentine Republic Concerning the Flight of the SAC-A Mission on the Shuttle. Signed at Buenos Aires October 16, 1997; Entered into force October 16, 1997, T.I.A.S. No. 12893.

The Agreement with Indonesia on Southeast Asia Composition, Cloud, Climate Coupling Regional Study has been concluded between the implementing agencies of the cooperating States.⁴⁵ Its main difference from the previously analyzed agreements is that it was not concluded with a reference to a framework government-level space treaty; rather the Agreement's Preamble provides reference to the Agreement between the Government of the United States of America and the Government of the Republic of Indonesia on Scientific and Technological Cooperation.⁴⁶ Although substantively and structurally this Agreement is not different from the earlier analyzed implementing arrangements or the memorandum of understanding, the absence of the framework space treaty between the two States, apparently, caused the choice of a different designation for this agreement. Moreover, it can be suggested that the reference to the treaty concluded in a different sphere of foreign relations – in accordance with the US State Department's United States Treaties in Force, which uses a fairly rigid subject-matter classification of the treaties – was necessary to allow conclusion of this Agreement on an inter-agency level and to avoid the need for its ratification.

In accordance with the Treaty Clause of the United States Constitution, every international treaty must be ratified by a two-thirds majority vote of the Senate. This supermajority vote requirement is essential in the system of checks and balances but might be time consuming and in some cases might prove detrimental to international cooperation. Therefore, the reference in agency-level agreements to bilateral treaties that have already been ratified in accordance with provisions of the Constitution allows avoiding the requirement for their ratification on the premise that the Senate has already given its approval to activities falling within the scope of the treaty, especially when the treaty itself calls for conclusion of additional agreements or implementing arrangements. In this case, the treaty with Indonesia on scientific cooperation in Article VI stipulates that cooperation be discharged through implementing arrangements or other agreements, and Article II includes 'space, nanotechnology and advanced technologies, including remote sensing' in the areas of cooperation in achievement of the treaty's objectives. Description of the program provided in Article 1 of the 2012 Agreement with

⁴⁵ Agreement between the National Aeronautics and Space Administration of the United States of America and the National Institute of Aeronautics and Space of the Republic of Indonesia for Cooperation on the Southeast Asia Composition, Cloud, Climate Coupling Regional Study. Signed at Washington and Jakarta May 31 and June 19, 2012; Entered into force June 19, 2012, T.I.A.S. No.12-619.1.

⁴⁶ Agreement between the Government of the United States of America and the Government of the Republic of Indonesia on Scientific and Technological Cooperation. Signed at Jakarta March 29, 2010; Entered into force February 16, 2011, T.I.A.S. No. 11-216.

Indonesia leaves no doubt that it falls within the scope of cooperation covered by the 2011 Agreement on scientific cooperation.

The practice of the recent years has introduced several changes to the structure of bilateral framework space treaties concluded by the United States. The agreements with Argentina and Ukraine are the prominent examples of the currently adhered to configuration of bilateral space treaties.⁴⁷ Overall, there are four changes. First, the latest framework treaties include an article defining the terms used, including the terms 'Launch Vehicle', 'Payload', 'Protected Space Operations', 'Related Entity' and 'Transfer Vehicle'. The designated implementing agencies are now also enumerated in the definitions article. Second, Article 13 of both Agreements asserts the obligation of the implementing agencies to decide as to which agency will request the respective government to register a spacecraft in accordance with the 1975 Registration Convention in cases when a particular project, as enunciated in an appropriate implementing arrangement, involves a launch.

Third, a new article entitled 'Consultations and Settlement of Disputes' has been added. Although substantively similar provisions were included in earlier framework treaties,⁴⁸ the title of the article now reflects the twofold role played by consultations: on the one hand, they serve as a mechanism to review implementation of the activities undertaken pursuant to the treaty, and on the other, they function as a preliminary mechanism in the dispute resolution process.

Recalling the five reasons behind inclusion of the consultation mechanism in bilateral treaties,⁴⁹ a conclusion can be drawn that consultations in the context of the bilateral space treaties of the United States are designed to perform only three of those functions.⁵⁰ The text of the article clearly states that in the event questions arise with regard to the implementation of

⁴⁷ Space Cooperation Agreement between the United States of America and Ukraine. Signed March 21, 2008; Entered into force January 22, 2009, T.I.A.S. No. 09-122. Framework Agreement between the Government of the United States of America and the Government of the Argentine Republic on Cooperation in the Peaceful Uses of Outer Space. Signed October 25, 2011; Entered into force July 20, 2013, T.I.A.S. No. 13730.

⁴⁸ See e.g., Article 3 of the Agreement between the United States of America and the Kingdom of Norway for Cooperation in the Civil Uses of Outer Space, which is entitled 'Consultations' and provides that (1) "the Implementing Agencies shall consult, as deemed appropriate and necessary, to review the implementation of activities undertaken," and (2) "in the event questions arise regarding the implementation if programs under this Agreement, the questions will be resolved by the program managers of the programs involved." Although the second part of the article nowhere explicitly mentions 'consultations', a context reading of the Article suggests that consultations are also a preferred initial method of communication in dispute resolution.

⁴⁹ See, B. Cheng, Role of Consultation in Bilateral International Air Service Agreements, as Exemplified by Bermuda I and Bermuda II, 19 Colum. J. Transnat'l L. 183 (1981), at 190.

⁵⁰ The five reasons are: control and supervision of the operation of the agreement; a preliminary to arbitration or other dispute resolution mechanism; the means of elevating an issue to the inter-State level; review of changed circumstances as a matter of good will; and change of the agreement.

activities pursuant to the treaty, they should either be resolved by the project managers, or in case of their inability to reach an agreement, "the matter will be referred to a more senior level of the *Agencies* for joint resolution."⁵¹ Thus, consultations cannot be used to elevate the dispute to the inter-State level, but remain the inter-agency mechanism of communication. Further, Article 16 unequivocally states that amendments to the treaty can only be made by mutual written agreement of the Parties: first, the Parties are defined as the Government of the United States of America and the Government of Ukraine or Argentina respectively – so clearly the inter-agency agreement is not sufficient, and, second, the *written* form of the agreement needed to introduce an amendment goes beyond the type of communication the consultations mechanism provides.

It has been earlier suggested that consultations is a helpful mechanism due to its flexibility and less formalized form; these, thereby, are precisely the reasons behind limiting the functions of the consultations mechanism as well. An amendment to a legally binding treaty is equally legally binding; the stance of the United States on additional legally binding documents in the area of space activities is widely known, so it comes as no surprise that the US State Department has reserved the exclusive right to negotiate amendments. Involvement of government-level officials in the resolution of a dispute in a sensitive business of outer space activities might have long-term strategic consequences, so it seems wise, predominantly from a political perspective, to leave the possibility of government involvement to be decided by the government, not the implementing agencies. Overall, even with the named limitations, consultations are capable of facilitating proper and prompt communication of the agencies involved, and that seems to be their greatest value.

The final change introduced in the most recent framework treaties can be found in the entry into force clause. Article 17 of both the treaty with Ukraine and with Argentina states: "This Agreement shall enter into force on the date of the last note of exchange of diplomatic notes in which the Parties notify each other of the completion of their internal procedures necessary for the entry into force of this Agreement." By contrast, Article 11 of the Framework Agreement with Sweden reads: "This Framework Agreement shall enter into force upon the date of signature and shall remain in force for ten (10) years unless terminated in accordance with Article 12." Apart from consequences this addition bears on national practices of the contracting

⁵¹ Article 14 of the Space Cooperation Agreement between the United States of America and Ukraine. Signed March 21, 2008; Entered into force January 22, 2009, T.I.A.S. No. 09-122

States, it has one important international implication. Space activities are notoriously costly; hence, prompt allocation of funds for space projects is crucial for their successful completion. Due fulfillment of the ratification requirement, read approval by the legislature, before the treaty enters into force ensures that necessary funds would be made available by national parliaments when the active stage of cooperation commences pursuant to the provisions of the treaty.

Bilateral US space treaties concluded in the twentieth century were quite diverse in their forms (many were concluded in the form of Exchange of Notes) and in their structure and substance of mutual rights and obligations. The majority of these treaties, however, has already expired and has mostly historical value. The twenty-first century has been marked by a greater uniformity, as has been shown above. In the era when a space launch ceased to be an event deserving front-page headlines throughout the world, and space activities have become more regular, maybe even mundane, an individual approach to every agreement concluded with respect to cooperative space activities is a time-consuming luxury few governments can, or wish, to afford. The uniform approach to space cooperation yields many benefits, including shorter negotiation times, predictability in allocation of responsibility among State agencies involved, more transparent accountability, fast-track funding procedures (at least in theory) and the like. And surely it provides an opportunity for researchers to draw general conclusions about the tendencies and trends in the US bilateral space cooperative practice, which is much appreciated.

13.1.4 United States-Russia Bilateral Treaties

Bilateral treaties concluded between the United States and, firstly, the Soviet Union, and now Russia will be briefly reviewed. These treaties, however, will not be analyzed using a sixcriteria analysis. First, some of them have exclusively historical value and have long ago expired; hence, their comprehensive analysis will add little value to the achievement of the goal of the present book, striving to analyze the *contemporary* forms of international space cooperation. Second, those treaties that are currently in force are reviewed with one peculiar purpose: to provide the reader with the broad picture on bilateral cooperative practice of the two States and to provide an understanding of whether the approach to bilateral cooperation among each other and with other States varies.

A disclaimer should be provided: to preserve credibility among researchers on both sides of the Atlantic, only those bilateral agreements will be analyzed that are considered legally

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binding treaties by both States, meaning that protocols,⁵² implementing arrangements⁵³ and similar documents will not be included in the scope of the present analysis. That leaves only two bilateral treaties currently in force: the Agreement concerning the procedure for the customs processing and duty-free entry of goods⁵⁴ and the Agreement concerning cooperation in the exploration and use of outer space for peaceful purposes.⁵⁵

The first bilateral agreement between the two 'space powers' was concluded in 1962 on the initiative of President Kennedy. The negotiations with the Soviet Union proceeded in an informal manner, giving the contemporaries an impression that the chances for a major American-Soviet space program looked slim, though such a possibility was not automatically excluded.⁵⁶ The Bilateral Space Agreement of June 8, 1962 between the Soviet Union and the United States consisted of the Summary of Understandings between the Academy of Sciences of the Soviet Union and the National Aeronautics and Space Administration of the United States, subsequently confirmed and implemented by the First Memorandum of Understanding between the two agencies of 1963. "The Agreement provides for a coordinated meteorological satellite program, passive communications satellite experiments, a magnetic field survey through the use of artificial satellites, and future discussions by the scientists of the two countries of scientific results obtained from deep space probes. ... In these arrangements we have perhaps the first practical premonition of what might ultimately develop into a "space for peace pool" transcending political differences."⁵⁷

⁵⁵ Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, with annex. Signed at Washington June 17, 1992; Entered into force June 17, 1992, T.I.A.S. No. 12457. Amendments and extensions: June 13 and 16, 1997; July 3 and August 9, 2002; December 3 and 26, 2007 and January 25, 2008, T.I.A.S. No. 07-1227.1. Although formally the latest extension of the 1992 Agreement has expired in 2012, both States include the 1992 Agreement in the list of bilateral treaties currently in force.

⁵² E.g., Protocol to the implementing agreement of October 5, 1992 on human space flight cooperation. Signed at Moscow December 16, 1993; Entered into force December 16, 1993, T.I.A.S. No. 12522.

⁵³ E.g., Implementing agreement on the flight of the Russian Lunar Exploration Neutron Detector (LEND) on the United States Lunar Reconnaissance Orbiter (LRO). Signed at Moscow October 3, 2007; Entered into force October 3, 2007, T.I.A.S. No. 07-1003.

⁵⁴ Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning the Procedure for the Customs Processing and Duty-Free Entry of Goods Transported within the Framework of US-Russian Cooperation in the Exploration and Use of Space for Peaceful Purposes. Signed at Moscow December 16, 1994; Entered into force August 26, 1996, T.I.A.S. No. 12588.

⁵⁶ *Cf.*, M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 8. ⁵⁷ C.W. Jenks, *Space Law* (1965), at 86.

Next was the Agreement Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes of 1972,⁵⁸ which was later hailed an 'umbrella treaty'. This label, however, does not reflect the quite narrow scope of that treaty focusing on scientific space activities. Article 1 limits the scope of cooperation to "fields of space meteorology; study of natural environment; exploration of near earth space, the moon and the planets; and space biology and medicine." Methods of cooperation focus on scientific exchange, not joint activities in practical applications. Article 3 expresses hope that "joint scientific experiments in future" might become a part of two-State cooperation, envisaging docking of an Apollo-type spacecraft and a Soyuz-type spacecraft. Article 5, being apparently the reason for the treaty's nickname, reads: "The Parties may by mutual agreement determine other areas of cooperation in the exploration and use of outer space for peaceful purposes." The wording of this provision, however, is so weak and unspecified that it hardly amounts even to an introductory agreement to work toward identification of possible areas of mutually beneficial cooperation.

The scope of the treaty is, on the one hand, too specific to be regarded a framework treaty, and on the other, too broad, and its wording too vague to constitute a project-specific agreement. Overall, not one article in this six-article treaty sets forth rights and obligations of cooperating States; rather it guides the States to "develop cooperation," what, recalling the overall thrust of the Outer Space Treaty and provisions of the United Nations Charter, does not add anything to the principle of cooperation as between these two States. It is suggested that this treaty is one example of a treaty of intent; the only specific provision that might be considered as establishing obligations of the Parties can be found in Article 3, which, however, only instructs States "to carry out projects for developing compatible rendezvous and docking systems" in order to provide the opportunity for cooperation *in the future*. So the States are expected to engage in construction of certain equipment, while it is not at all clear whether the construction should be a joint venture or should be performed by each State separately, that can be used in the 'envisaged' cooperative endeavor, should such cooperation at all take place – since nothing in the treaty establishes legal or organizational basis for such cooperation. It seems that such a construction fits perfectly the definition of a treaty of intent. And the duration clause – only five

⁵⁸ Agreement between the Government of the United States of America and the Union of Soviet Socialist Republics Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes. Signed May 24, 1972; Entered into force May 24, 1972, T.I.A.S. No. 7347, 23 U.S.T. 867.

years – indirectly indicates, one, the cautiousness of the cooperating States, and two, their uncertainty that cooperation based on this treaty would indeed last.

The last treaty with the Soviet Union was concluded in 1987.⁵⁹ It mandated cooperation of the two States in performance of sixteen cooperative projects in such fields of space science as solar system exploration, space astronomy and astrophysics, earth sciences, solar-terrestrial physics and space biology and medicine. The primary method of cooperation was mutual exchange of scientific information and delegations. Work of the designated agencies should have been organized using joint working groups, but it was specifically noted that each recommendation of the working groups was subject to approval on governmental level.

Just as the previous US-Soviet space treaties, this Agreement did not address matters that are now a part of every bilateral agreement: financial arrangements, customs and immigration requirements, export control, intellectual property and liability. The treaty, however, specifically provided for an exchange of personnel – so one would expect immigration procedures to be involved; allowed for an exchange of scientific equipment where appropriate – so matters of customs clearance and export control were similarly relevant; and called for joint activities in space science, which might well have resulted in inventions subject to intellectual property rights. Article 4 of the Agreement settled all these issues at once, leaving their resolution to diplomatic offices of the two States: "Cooperative activities under this Agreement, including exchanges of technical information, equipment and data, shall be conducted in accordance with international law as well as the international obligations, national laws, and regulations of each Party, and within the limits of available funds."

This Agreement, being more specific in its scope and rights and obligations of the cooperating States, also incorporated a different duration clause, setting the term to five years, but providing for a possibility of further extensions by an exchange of notes between the Parties. Although the extension procedure had never been used, since in 1992 the new treaty, now with Russia was already concluded, its inclusion signaled that the two States, while preserving a cautious approach, appreciated the value of cooperation with each other and, hence, provided for an opportunity to extend the period of cooperation should they find it desirable. Moreover, now that cooperation obtained more or less detailed characteristics and ceased to be an amorphous

⁵⁹ Agreement between the Government of the United States of America and the Union of Soviet Socialist Republics concerning cooperation in the exploration and use of outer space for peaceful purposes, with annex. Signed at Moscow April 15, 1987; Entered into force April 15, 1987, T.I.A.S. No. 11433, 2192 U.N.T.S. 203.

concept as it used to be in the 1972 Agreement, the possibility of the longer-than-five-years term of cooperation seemed quite real, and arrangements had to be made to accommodate this possibility.

In late 1991 the world had awoken to one less empire and fifteen more independent States. Dissolution of the Soviet Union brought a new perspective on space cooperation between Russia and the United States, and promotion of bilateral cooperation was the first step in the process of rapprochement between the former rivals. In 1992 the United States and Russia concluded the Agreement Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, which continues up until today to be the legal basis for space cooperation of the two States.⁶⁰

This Agreement, from a legal perspective, is a big step forward compared to the 1987 Agreement, though it has preserved the framework nature. First, the Preamble notes commercial applications of space technologies as one of the potential areas of cooperation. Commercial space activities were unthinkable in the Soviet Union; dismantling of the communist system allowed the States to properly note and highlight the growing trend of space commercialization in the treaty. Second, Article I sets forth a much broader scope of possible cooperation, including fields of space science, space exploration, space applications and space technology. Presumably, this Agreement creates the legal basis for cooperation in any and all possible areas of space exploration and use. Thus, the Agreement abandons the earlier used restriction of cooperative activities to the field of space science using exchange of scientific information and personnel; now practical joint endeavors in outer space have finally become possible.

Third, Article III of the Agreement acknowledges its framework nature and instructs the appointed implementing agencies to conclude specific written agreements that define the nature and the scope of the project, the individual and joint responsibilities of the cooperating agencies, financial arrangements and protection of individual property. Thereby, the legal basis for long-term cooperation in space between the United States and Russia has been established.

Fourth, the Agreement includes an article establishing the consultations requirement. What distinguishes Article IV of this treaty from all other articles requiring consultations in all other bilateral treaties reviewed earlier is that, first, it calls for government-level consultations,

⁶⁰ Agreement between the United States of America and the Russian Federation Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes. Singed June 17, 1992; Entered into force June 17, 1992, T.I.A.S. No. 12456, 1992 W.L. 877273.

second, that it requires that consultations be held annually, and third, that they can only be used to review the progress of cooperation and propose new activities, not to settle arising questions. The first difference is the most notable; despite the designation of cooperating agencies in the same treaty, the States remained circumspect in their relations and considered government-togovernment communication the best way to ensure that their relations stay amicable.

Fifth, the Agreement asserts obligations of the Parties to ensure adequate and effective protection of intellectual property created or furnished under this Agreement. The Annex to the Agreement elaborates the definition of intellectual property as used for the purposes of the Agreement, establishes the rules of allocation of intellectual property rights and provides for special treatment of business-confidential information. Although this Annex can hardly be hailed as creating a comprehensive intellectual property regime, it covers basic legal principles, establishing the much-need foundation for specific implementing arrangements.

The duration clause has been exported from the 1987 Agreement, apparently, due to benefits such approach provides. The Agreement had been extended three times, and the last extension expired in 2012. Nevertheless, both States include the 1992 Agreement in their lists of bilateral treaties in force, prompting to consider it as such. Overall, although the Agreement provides only a cursory outline of the legal framework for cooperation in outer space, it proved to be sufficient to facilitate expansion of joint space-related activities of the two States. It is suggested that the practice of concluding a framework treaty that is complemented by specific implementing arrangements when necessary is a convenient legal tool in establishment of longterm relations without unduly limiting possible ways and means of cooperation – after all, in a technology intensive field of space activities, prediction of the way space cooperation might evolve in twenty years is a task difficult to attain.

The second US-Russia bilateral space treaty that is currently in force deals with particular issues of duty-free entry of goods transported in connection with cooperative activities of the States.⁶¹ The Agreement contains five concise articles that designate the cooperating agencies, require them to provide lists of transported goods to appropriate customs organs and mandate the entry of these goods to be duty-free. Article 4 adds that subject to separate arrangements some

⁶¹ Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning the Procedure for the Customs Processing and Duty-Free Entry of Goods Transported within the Framework of US-Russian Cooperation in the Exploration and Use of Space for Peaceful Purposes. Signed at Moscow December 16, 1994; Entered into force August 26, 1996, T.I.A.S. No. 12588.

goods and technologies necessary for implementation of the 1992 Agreement⁶² might be supplied on a free-of-charge basis. Finally, due to the obvious need to implement provisions of the Agreement on a national level, namely by way of incorporation of relevant duty-free clauses in the customs laws of the two States, Article 5 stipulates that the Agreement enters into force after an exchange of diplomatic notes in which the Parties notify each other of the completion of their internal procedures necessary for the treaty's entry into force.

Concluding the review of the US-Russia bilateral space treaties, two observations are due. First, bilateral cooperation between these two States, despite the outlined specifics, follows the approach advanced by both Russia and the United States, namely conclusion of framework agreements that create a basis for further elaboration of particular projects, corresponding rights and obligations of the parties and the like. While the framework nature of the US-Russia treaty is more 'exaggerated' compared to other bilateral space treaties of the two countries currently in force in that it provides only 'bones' of the legal regime, failing to regulate many issues that are normally addressed in modern bilateral treaties, that does not alter the overarching approach of the two States to space cooperation, no matter the counter-party.

Second, despite the scope of space cooperation between the two States, two treaties were deemed sufficient to provide the legal foundation for such cooperation. More broadly, the framework nature of the majority of concluded space treaties essentially presupposes that just one treaty is generally enough, unless specific sensitive issues should be addressed in a legally binding way. Intensity of cooperation does not affect the density of legally binding treaties necessary to regulate cooperative activities. That is the main feature and also the main benefit of framework treaties, as it will be shown below.

13.2 Six-Criteria Analysis

⁶² One might wonder, though, whether any goods and technologies might become necessary to implement a framework treaty. The chosen wording seems to be a compromise to facilitate usage of the same wording in both English and Russian texts of the Agreement, which unfortunately led to this confusing formulation.

13.2.1 Membership/Participation

13.2.1.1 Russian Bilateral Treaties

Russia has concluded fifty-six bilateral treaties on space cooperation with twenty-three countries and one international organization, the European Space Agency; in addition, it has signed three protocols with Korea and Kazakhstan and five memoranda of understanding with four States. Notwithstanding the designation and the type of an agreement, Russia concludes space agreements exclusively with 'traditional' subjects of international law – sovereign States and international intergovernmental organizations – making States its prime counter-party in bilateral space cooperation.

13.2.1.2 United States Bilateral Treaties

The United States has sixty-eight bilateral space cooperation treaties in force concluded with nineteen States and one international organization – the European Space Agency. Just as Russia, the United States follows the traditional approach in choosing its counter-parties in bilateral space cooperation. The European Space Agency seems to be the only exception from the apparent, although non-written law of bilateral space cooperations stating: Cooperate exclusively with States. Despite existence of multiple space organizations neither the United States, nor Russia deemed it necessary to conclude bilateral treaties with any of these. It is suggested that the uniquely important role of the European Space Agency, which oftentimes in effect acts as a representative of its members, or even broader as a representative of the European space sector generally, warranted conclusion of the existing bilateral space treaties.

13.2.2 Secretariat

13.2.2.1 Russian Bilateral Treaties

While some bilateral treaties, for example those with Chile and Cuba, provide for an establishment of working groups in connection with the implementation of the treaties and require holding bilateral meetings – consultations – they both are envisioned as *ad hoc* arrangements commenced only when and if necessary, and arrangement of which necessitates separate planning. None of the analyzed treaties enunciate a detailed procedure of these meetings, their locations, frequency and the like, therefore, leading to a conclusion that if a

secretariat is deemed necessary in connection with any of these meetings, it is appointed on an *ad hoc* basis.

13.2.2.2 United States Bilateral Treaties

None of the analyzed United States treaties provide for the need to establish formal working groups or similar organs, but every treaty enunciates the consultations procedure. Contextual reading of relevant provisions prompt the conclusion, as had been noted above, that consultations always remain the inter-agency informal and non-written mechanism of communication. The only treaty that provides for annual government-level consultations, the 1992 treaty with Russia, sets forth this mechanism, most likely, for political reasons and, despite presumably more formalized procedure, does not set forth a procedure for these meetings organization. That leads to a conclusion that none of the United States treaties necessitates creation of a permanent secretariat; an *ad hoc* organ performing secretarial functions would suffice for both formal consultations and informal agency-level consultations.

13.2.3 International Legal Personality

Since neither Russian, nor United States bilateral treaties create permanently working secretarial organs, no entity possibly possessing international legal personality could have been created.

13.2.4 Term of Existence

13.2.4.1 Russian Bilateral Treaties

Article 15 of the 2011 Agreement with Belarus enunciates that the Agreement shall remain in force for ten years and will automatically be extended for another ten-year period unless any Party informs the other of its intention to terminate the Agreement. The Agreement does not provide for a separate withdrawal or termination procedure, apparently resorting to the general rules of the Vienna Convention on the Law of Treaties. The 2013 GLONASS Agreement with Belarus, in accordance with Article 14 provisions, shall remain in force for an indefinite period conditional to continuing validity of the 2011 Agreement. Unlike the 2011 Agreement, this one provides for a termination clause, requiring a 6-month advance notification.

The 2006 Agreement with Indonesia uses a different duration clause. Here the agreement's duration is limited to five years, though an automatic procedure is foreseen unless any Party duly informs the other of its intention to terminate the treaty.

The treaties with Cuba and Chile contain a noteworthy provision that cannot be found in any US space treaty. Paragraph 2 of Article 15 of the Russia-Cuba Agreement in the relevant part states: "The present Agreement is concluded for an indefinite period." Although in effect this duration clause is not different from that establishing a 10-year duration term with an automatic extension unless parties agree otherwise, a modern treaty intended to perpetually remain in force is a rarity in treaties concerning bilateral cooperation. One scholar has noted: "It is scarcely to be doubted that treaties are ordinarily consummated after a due consideration by all parties of the possible benefits which may in the future accrue to them through the operation of the treaty under consideration. It so happens that one state often finds that it has made a bad bargain, or that it failed to take into consideration future contingencies that might operate to its disadvantage. Thus the state may find itself bound either for a term of years or in perpetuity to a contract, the execution of which may entail varying degrees of injury to itself."⁶³

The majority of contemporary bilateral treaties contain a withdrawal clause; even in its absence, provisions of Article 56 of the Vienna Convention on the Law of Treaties give a State not willing to continue to be bound by the treaty in question an opportunity to withdraw. It has been correctly noted that if one assumes that States concluding a treaty are rational actors, duration and withdrawal clauses must bring certain advantages, or they would not appear in the agreements.⁶⁴ It follows, then, that the 'indefinite duration' clause was, first, meticulously elaborated by the contracting States, and, second, that such a clause was deemed most beneficial for both parties. But to understand reasons behind choosing one duration clause over the other, which clearly cannot be random, one should understand differences in the circumstances surrounding conclusion of the agreement in question, including the cooperation problems it is trying to solve.⁶⁵

While it can be assumed with certainty that one of the reasons behind the treaty was the desire to formalize cooperation in exploration and use of outer space, even should it commence

⁶³ J.P. Bullington, *International Treaties and the Clause* "Rebus Sic Stantibus", 153 Univ. of Pa. L. Rev. (December, 1927), at 153.

⁶⁴ Cf., B. Koremenos and A. Nau, *Exit, No Exit*, 21 Duke J. of Comp. & Int'l L. 81 (2010), at 83. ⁶⁵ Id. at 85.

at some point in future, there is not much more reliable information to base conclusions on regarding the reasons behind wording of this or that article. Identification of some – though likely not all – reasons behind certain provisions included in a multilateral treaty is an analytically easier task since, first, *travaux préparatories* are often publicly available and serve as a good source to understand moods, concerns and views of negotiating parties, and, second, the very fact that a certain group of States has come together is already suggestive of their intentions. In case of a bilateral treaty the task becomes more complicated because it is a true rarity when 'behind the scenes' of bilateral negotiations are made public, and, of course, because State-to-State relations embrace an abundance of political, social, economic, cultural, historical and even personal considerations that cannot become known to an outsider.

Based on the general thrust of the treaties and, to some extent, on subjective considerations of a politico-moral character, it is suggested that there are generally three types of duration clauses that are used in treaties pursuing different goals. First, the 'indefinite duration' clause is used in framework agreements aimed at establishment of the legal and organizational basis for future-oriented cooperation with a State that is considered a strategic partner. Second, the long-term duration clause with a provision for possible extension is used in framework agreements aimed at establishment of the legal and organizational basis for cooperation that is to be commenced in the short term. While in both cases framework agreements are aimed at creation of a comprehensive cooperative regime that is supposed to be used for the years to come, the temporal proximity of the launching of cooperating activities prompts the contracting States to express caution. The first cooperative project might well go wrong inducing a contacting State to terminate the agreement; while, legally speaking, withdrawal from a treaty concluded for a limited time and from that concluded for an indefinite period would not differ, politically these are quite different situations.

A recent article on exiting treaties shows that a breach of treaty obligations and a complete withdrawal of a State yield different payoffs, particularly that "[t]he choice to denounce, together with any explanation the state offers to justify its decision, may signal an intent to 'play by the rules' of future treaties as well. As a result, harm to the withdrawing state's reputation as a law abiding nation may be minimal."⁶⁶ Using the same logic, it is suggested that a withdrawal from a treaty that was intended to last presumably forever in the first years of its

⁶⁶ L.R. Helfer, *Exiting Treaties*, 91 Va. L. Rev. 1579 (2005), at 1622.

existence would signal that this State is incapable of maintaining long-term partnership relations, that its selfish interests are above values of cooperation. A withdrawal from a limited-term treaty, however, may not entail similar consequences: at the outset the contracting States agreed to limit the term of their cooperation, so there is no surprise that cooperation might come to an end.

The third type of a duration clause is a simple limited term without an extension provision, which, nevertheless, might provide for extension of the duration term subject to a separate agreement of the States. This is the most common type of a duration clause that can be found in bilateral space treaties of the United States.

Bilateral space treaties of the Russian Federation do not normally use this type of duration clause, even in project-specific agreements. The 2003 Agreement with France, for example, uses the second type of a duration clause, stating in Article 19 that the treaty shall remain in force till December 31, 2016, and that afterwards its term shall be extended automatically for following 10-year periods. The 2011 Agreement Kazakhstan, by contrast, uses a quite peculiar duration clause: the result of cooperation pursuant to this Agreement is a tangible satellite, and for this reason the duration of the treaty is conditional to completion of the process of the satellite construction and launching.

Overall, the treaties tend to be concluded for a long period with further automatic extension, effectively making them expected to remain in force for an indefinite period of time. On the one hand, such an approach to bilateral cooperation signals that Russia tends to conclude just one framework treaty and proceed with cooperation using less formal, usually inter-agency, agreements. Out of the twenty-three States Russia has bilateral space treaties with, with fourteen of them it has just one treaty that follows the described above structure. On the other hand, some States Russia has concluded treaties with, were not actively involved in space activities at the time of the treaty conclusion, and, thus, these treaties appear to serve strategic long-term goals. Except for the obvious example of the recent treaty with Cuba, earlier occasions can also be found. The bilateral space treaty with Mexico was concluded in 1996,⁶⁷ but only as of 2015 have the two States engaged in a cooperative undertaking, which, unfortunately, ended with a fiasco.⁶⁸

13.2.4.2 United States Bilateral Treaties

Generally, the duration clause of both framework agreements and implementing arrangements provides that the agreement shall remain in force for ten years. Project-specific agreements may include different duration clause due to specifics of the project. The Memorandum of Understanding with Argentina Concerning the Flight of the SAC-A Mission on the Shuttle,⁶⁹ for example, has the duration of the agreement subjected to completion of the mission, which also includes a "period for data analysis not to exceed three years."

Overall, over the fifty years since the United States embarked on bilateral space cooperation, it has concluded dozens of agreements on various aspects of space exploration and use. The United States space agreements, however, are rather cautious in their duration clauses, and many of the earlier treaties have ceased to be in force. For example, the first framework treaty with Argentina had been concluded in 1991 and expired in 2006. The currently enforced treaty was negotiated only five years later, in 2011. So instead of extending the previous treaty, or rushing to conclude another agreement, the Parties that had been bound by a space cooperation agreement for fifteen years and had undertaken more than one cooperative mission, opted for a temporary intermission. Acknowledging that a multitude of reasons, of both national and international character, might have affected this decision, it certainly indicates that bilateral space treaties in the US practice are concluded primarily when there is an actual need in cooperation. That is a drastic difference from the practice of Russia to conclude framework treaties for long periods with automatic extensions, or sometimes even for indefinite periods,

⁶⁷ Soglashenie mezhdu Pravitelstvom Rossiiyskoi Federatsii i Pravitelstvom Meksikanskih Soedinennih Shtatov o Sotrudnichestve v Oblasti Issledovaniya I Ispolzovaniya Kosmicheskogo Prostranstva v Mirnykh Zelyakh [An Agreement between the Government of the Russian Federation and the Government of the United States of Mexico on Cooperation in Exploration and Use of Outer Space for Peaceful Purposes] of May 20, 1996, entered into force November 29, 1996, Biulleten' Mezhdunarodnykh Dogovorov [Bulletin of International Treaties] No. 4 1997.⁶⁸ R.M. Herszenhorn, *Russian Rocket Carrying Mexican Satellite Is Said to Crash in Siberia*, The New York Times, May 16, 2015, available at http://www.nytimes.com/2015/05/17/world/europe/russian-rocket-carrying-mexicansatellite-is-said-to-crash-in-siberia.html?_r=0.

⁶⁹ Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the National Commission on Space Activities of the Argentine Republic Concerning the Flight of the SAC-A Mission on the Shuttle. Signed at Buenos Aires October 16, 1997; Entered into force October 16, 1997, T.I.A.S. No. 12893.

with States, which might not be able to meaningfully cooperate in space activities in the foreseeable future, predominantly due to strategic considerations.

13.2.5 Binding Force of Documents Produced

13.2.5.1 Russian Bilateral Treaties

The 2006 Agreement with Indonesia allocates a separate article to state that organizational, financial, legal and technical terms of particular projects and programs shall be the subject of separate agreements, which are to be concluded in written form and shall be in compliance with international obligations of the Parties. The same provisions were incorporated in the 2011 Agreement with Belarus in article 6, which confirms that all "organizational, financial, legal and technical terms of performance of particular programs and cooperative projects in furtherance of the present Agreement shall constitute a subject for separate agreements directly between the Parties or separate agreements (contracts) between participants of cooperative activities."

By and large, almost every treaty includes a similar provision that in effect levies the burden of project-specific arrangements onto project-specific agreements and contracts. That, however, by no means signals that conclusion of project-specific agreements is mandated by relevant treaties. Project-specific documents are to be concluded only when and if cooperating States consider it necessary; therefore, while these documents are concluded within the framework of the general treaty, their conclusion is not required. Hence, these project-specific agreements do not necessarily fall within the category of 'documents produced' within the relevant mechanism of cooperation: they are concluded under the umbrella of the treaty, but they preserve distinct independence, at least in terms of their negotiation procedure. The bottom line is that none of the analyzed treaties contains an explicit authorization for conclusion of the project-specific agreements, merely explaining that they are necessary for regulation of certain matters, thus questioning the very fact that they are 'produced' within the mechanism of cooperation.

The necessary project-specific agreements are either concluded in the form of private law civil contracts or, on the public international level, by way of conclusion of memoranda of understanding, protocols, interim agreements and the like. Only in exceptional cases touching upon vital interests of the Russian Federation the project-specific agreements are concluded on

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an intergovernmental level in the form of a treaty; multiple bilateral treaties with Kazakhstan regarding utilization of the Baykonur Cosmodrome, which is considered a strategic asset, support this conclusion.

The Russian Foreign Ministry does not consider protocols, memoranda of understanding and similar implementing agreements to be treaties and, hence, does not include these in the list of Russian bilateral treaties in force.⁷⁰ The obvious advantage of these types of agreements, thus, is the absence of a need for their ratification. Generally, in Russian bilateral practice a memorandum of understanding is concluded either to formalize interest of two States in cooperation and agree on development of a legally binding treaty,⁷¹ or to specify rights and obligations of contracting States in performance of a particular project, when a general legally binding treaty between these parties is already in force.⁷²

To summarize, even if a proposition that project-specific agreements are produced within the mechanism of cooperation of framework treaties is accepted, it is undisputed that these agreements are legally non-binding on the international plane.

13.2.5.2 United States Bilateral Treaties

Framework treaties of the United States resemble Russian practice requiring that "the specific terms and conditions for Programs shall be set forth in implementing arrangements between the implementing agencies," which might include provisions related to the nature and scope of a particular program, individual rights and responsibilities of the agencies, financial, technical and other arrangements. All framework treaties specifically note that such "Implementing Arrangements shall incorporate by reference and be subject to this Framework

⁷⁰ See, The List of Bilateral Treaties of the Russian Federation on the official website of the Russian Foreign Ministry at http://archive.mid.ru/spd_md.nsf/webcantr/. Full texts of protocols and memoranda of understanding is available at the official website of the Russian Space Agency at www.federalspace.ru.

⁷¹ Memorandum o Vzaimoponimanii Mezhdu Federalnim Kosmicheskim Agenstvom I Ministerstvom Nauki I Institutom Telekommunikatsii I Pochti Respubliki Nicaragua po Voprosam Sotrudnichestva v Oblasti Issledovaniya I Ispolzovaniya Kosmicheskogo Prostranstva v Mirnikh Zelyakh [Memorandum of Understanding Between the Federal Space Agency and the Institute of Telecommunication and Post of the Republic of Nicaragua Concerning Cooperation in Exploration and Use of Outer Space for Peaceful Purposes] of December 18, 2008, available at the official website of the Russian Space Agency www.federalspace.ru.

⁷² Memorandum o Vzaimoponimanii Mezhdu Federalnim Kosmicheskim Agenstvom I Ministerstvom Nauki I Tekhnologii Federativnoy Respubliki Brazilii Otnositelno Sotrudnichestva v Osuschestvlenii Kosmicheskoi Deyatelnosti [Memorandum of Understanding Between the Federal Space Agency and the Ministry of Science and Technology of the Federative Republic Brazil Concerning Cooperation in Performance of Outer Space Activities] of November 22, 2004, available at the official website of the Russian Space Agency www.federalspace.ru.

Agreement unless the Parties agree otherwise,"⁷³ thus confirming the foundational role played by the framework treaties in project-specific cooperation. Thereby, while framework treaties constitute the legal basis for project-specific agreements, they, just as Russian treaties, do not require or explicitly authorize particular organs to conclude project-specific documents. In the US practice project-specific documents are normally entitled either 'implementing arrangements' or 'memoranda of understanding'.

It is notable that the Treaties in Force enumerates memoranda of understanding and implementing arrangements on a par with more traditionally entitled bilateral 'agreements', for example the Memorandum of Understanding between the United States and Argentina concerning the flight of the SAC-A Mission on the (NASA space) shuttle is included in the list. Therefore, it should be determined whether the inter-agency project-specific bilateral space agreements of the United States regardless of their designation are legally binding treaties.

As applied to the area of mutual legal assistance, an opinion has been expressed that a memorandum of understanding should not be considered equal to a treaty because it does not engage the executive or the legislature in negotiations, deliberation, or signature. Rather, memoranda of understanding are considered "good-faith agreements, affirming ties between regulatory agencies based on their like-minded commitment to getting results."⁷⁴

With respect to bilateral defense treaties of the United States, it has been explained that implementing agreements concluded pursuant to a framework agreement created the bilateral *legal* basis for respective cooperation;⁷⁵ nothing in the texts of the framework treaties and the implementing arrangements on cooperation in space activities indicates that this evaluation does not stand in the space context. First, the texts of these agreements use the verb 'shall' to set forth obligations of the implementing agencies. Second, the provisions regarding agreements' amendment, duration, entry into force and termination are similar to those used in the framework treaties. Third, the clause giving priority to the text of the framework treaty in case of a conflict with provisions of the implementing arrangement does not by itself indicate a legal force of

⁷³ Framework Agreement between the United States of America and the Kingdom of Sweden for Cooperative Activities in the Exploration and Use of Outer Space for Peaceful Purposes. Signed October 14, 2005; Entered into force October 14, 2005, State Dept. No. 05-286.

⁷⁴ A.-M. Slaughter, *The Real New World Order*, 76 Foreign Affairs 183 (1997), at 187.

⁷⁵ *Cf.*, S. Murphy, *Role of Bilateral Defense Agreements in Maintaining the European Security Equilibrium*, 24 Cornell Int'l L. J. 415 (1991), at 420. [emphasis added]

either document.⁷⁶ Finally, inclusion of these agreements in the compendium of the United States *treaties* in force is an authoritative argument in favor of their legally binding nature in its own right.⁷⁷

13.2.6 Existence of Opportunity to Modify Obligations

The analyzed bilateral treaties, due to the very fact of them being legally binding international agreements, are regulated by the provisions of the Vienna Convention on the Law of Treaties. Hence, Article 39 of the Convention, which reads: "A treaty may be amended by agreement between the parties," applies to the analyzed treaties as well. Two other articles of the Convention, however, do not apply to bilateral treaties because their application is explicitly limited to multilateral treaties. Since any bilateral treaty has only two parties, there is no need for elaborate rules of their amendment; mere agreement in favor of amendment is sufficient.

"Naturally, bilateral treaties can be amended more easily than multilateral. The parties can always agree to an amendment: the only question is the form in which it is to be expressed. Sometimes the treaty will contain an amendment clause."⁷⁸ Russian bilateral treaties, indeed, include an amendment clause only occasionally, while the treaties of the United States include such a clause in every agreement. The United States amendment clause with minor editorial variations always reads: "These Parties may amend this Agreement by mutual written consent." Russian treaties include an amendment clause in approximately half of the treaties. Although the exact formulation of the clause varies from treaty to treaty, sometimes even requiring conclusion of a separate Protocol to effectuate an amendment, substantively the clause boils down to the contents of the United States' amendment clause formulation.

Clearly, "there may be reasons why an amendment clause is not wanted or is not desirable,"⁷⁹ and oftentimes the reasons are of political nature. While the amendment clause has

⁷⁶ See e.g., Article 7 of the Implementing arrangement between the National Aeronautics and Space Administration of the United States of America and the Swedish National Space Board of the Kingdom of Sweden for Cooperation in Aeronautic and Space Research Using Nanosatellite Technologies, which in relevant part reads: "In the event of a conflict between the provisions of this Implementing Arrangement and the Framework Agreement, the terms of the Framework Agreement shall prevail."

⁷⁷ It should be recalled that the Restatement (Third) of the Foreign Relations Law of the United States in Article 102 considers as sources of international law only those international agreements that create binding obligations between the parties to the agreement. Therefore, it should be presumed that in the US practice international agreements are only then considered a part of international law when they are legally binding.

⁷⁸ A. Aust, *Modern Treaty Law and Practice* (2013), at 234.

⁷⁹ Id.

an obvious advantage, that is specification of the means by which the amendment is put into effect, its absence does not affect the right of contracting States to amend the treaty in question. In case of a bilateral treaty, where only two parties are involved and the danger of creating multiple separate legal regimes for different parties of the treaty is not present, the amendment clause is of lesser relevance and importance.

13.3 Evaluation and Conclusions

This concludes the overview of selected bilateral space treaties of the United States and Russia. It has been shown that currently the practice of both States is to conclude framework agreements that establish the general legal and organizational regime for cooperation, and to formalize cooperation on particular projects using some form of implementing arrangements on the inter-agency level. It has also been shown that the 'obligation of result' in cooperation gets its legal formalization only in such implementing project-specific arrangements.

It is suggested that such an approach to bilateral cooperation is triggered by two considerations. First, it eliminates the need to go through a laborious process of a governmentlevel negotiation and later ratification of each agreement pertaining to implementation of a particular project. In the case of the United States, where implementing arrangements are considered legally binding treaties, reference in the implementing arrangements to the framework treaty allows circumventing the need for ratification due to the presumed blanket agreement granted by the Senate for all cooperation falling within the scope of the framework agreement. In case of Russia, such implementing arrangements are not considered legally binding and, thus, the question of their ratification does not even come up.

Intensification of space activities in general and of cooperative space endeavors in particular justifies this approach. On the one hand, grand and evolving projects akin to the International Space Station demand that sometimes an agreement should be reached within a short period of time, making the need for ratification an impediment to successful cooperation. On the other, space cooperation becomes more technically complicated, and it is not the legislature's task to profess particularities of space technology. Thereby, while the decision as to partners in space cooperation and scope of such cooperation is the one the executive must not make without the consent of the legislature, the elaboration of details of ways and means to

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implement cooperative projects can be better handled by agencies with professional expertise in these matters.

The second reason behind resorting to the framework treaty-implementing arrangement structure of cooperation is the wish to limit the breadth of legally binding obligations in the area of space exploration and use. Conclusion of a framework treaty does not *ipso facto* create the obligation to cooperate in its 'obligation of result' dimension; thus, it does not create the obligation the other party might legally enforce.⁸⁰ Acknowledging that States, being rational actors, conclude treaties only when they expect certain benefits to be derived from the treaty, oftentimes circumstances change, sometimes dramatically, along the way, changing attitudes of the parties toward each other and toward prospects of cooperation. Only a project-specific agreement, outlining rights and obligations in greater detail can become legally enforceable. And such an agreement is concluded only if and when projected cooperation is considered desirable by both parties, and when both parties find the legal enforceability an advantage rather than a limitation to their freedom of activities. By way of conclusion, it should be again reiterated that with respect to space cooperation this approach should be considered favorable. Manfred Lachs famously proclaimed: "[L]aw calls for cooperation, and cooperation calls for law,"⁸¹ and with this approach the law is present, and cooperation would follow.

In Russian practice at least one example of a bilateral framework treaty concluded with a State that is currently not active in outer space activities has been encountered. More treaties, including those with Mexico and Belarus, were concluded when these States did not engage in exploration and use of outer space. Earlier in the chapter scholarly opinions expressing concern regarding a relatively small involvement of less developed States in space cooperation and lesser benefits these States are obtaining from bilateral cooperation have been noted.⁸² There is no simple recipe to transform this state of affairs; efforts from both developed and developing nations would be required. Nevertheless, it is suggested that the practice of concluding bilateral framework agreements establishing a legal and organizational framework for cooperative space activities is a step toward resolution of the problem of States' uneven inclusion in space affairs.

⁸⁰ For a theoretical discussion regarding the enforceability of the principle of cooperation in its 'obligation of effort' dimension and its correlation with the principle of *pacta sunt servanda*, see Chapter 1, at 25-26.

⁸¹ M. Lachs, *The Law of Outer Space: An Experience in Contemporary Law-Making* (2010), at 27.

⁸² See, N. Chukeat, *International Cooperation for Sustainable Space Development*, 31 J. Space L. 315 (2005), at 337. Also see, I.A. Vlasic, "The Relevance of International Law to Emerging Trends in the Law of Outer Space," in

C.E. Black and R.A. Falk (eds.), *The Future of the International Legal Order, Volume 2: Wealth and Resources* (2015), at 308-09.

The most obvious advantage of this practice is creation of a legal basis. Once a certain project is conceived, proceeding to actual cooperative actions is a far easier task when the legal regime is already in place. Keeping in mind that involvement of an additional partner in a national project should be made at an early stage, when modifications to the project necessary to accommodate a larger number of participants are still possible, and the process of intergovernmental negotiation of a treaty might take long time, the offer for cooperation might become moot because of the advancements in the project development. Another advantage of having a treaty in place is that its negotiation, along with communication pursuant to the treaty once it is in force, allows the parties, especially the cooperating agencies, to get acquainted, to understand each other's priorities and capabilities. It is a valuable addition to bilateral relations since not the governments, but the appointed agencies are performing a particular project; and agency-to-agency relations make necessary contacts, updates or any other exchange of information more expeditious, thus raising the chances of development of a joint project. The final advantage is that an existing treaty 'raises awareness': once parties are aware of each other's readiness to take on certain obligations, the partner-State ceases to be just a State you do not conduct cooperative activities with and moves to a group of States you might be willing to involve in your next project.

Space cooperation between Russia and Belarus is an example to the point. Until 2012 Belarus was not actively participating in space activities, and the 2011 framework Agreement with Russia was filling the blank space of Belarusian international space relations. An existing legal framework prompted Russia to consider benefits of cooperation with Belarus, and in 2012 the Agreement on utilization of the GLONASS system was concluded.⁸³ This Agreement is beneficial to Belarus, providing access to location services to end users on its territory and furnishing an opportunity to launch and operate its national satellite. But this Agreement is no less beneficial to Russia, which is striving to make its GLONASS system truly global, and which will also benefit from access to data obtained using the Belarusian GLONASS facilities. Therefore, a mutually beneficial arrangement has been made, at the same time, affording benefits of space activities to a less developed country.

⁸³ It is also quite plausible that the 2011 Agreement was concluded in lieu of the mooted GLONASS project, and the 2012 Agreement came as a necessary elaboration of the legal regime. Whatever the actual chronology of cooperation was, the 2011 Agreement served a proof that Russia was ready to cooperate with Belarus, and once the framework treaty was in place, commencement of actual cooperation was a matter of time and politics.

The choice of a partner to conclude a treaty with, however, is influenced by a myriad of factors and considerations of legal, economic and political nature. Every treaty requires a meticulous elaboration of the advantages and drawbacks stemming from its provisions. In the area of space activities, where national security concerns are at a higher level, cooperation has many political implications, and, thus, almost by definition cannot be commenced with all or even a majority of States. But once a level of trust and friendship required from a political standpoint is achieved, consideration of prospective space cooperation becomes possible; and at this point conclusion of a framework treaty might be well justified. The Agreement between Russia and Cuba, which was concluded as a result of closer relations between the two countries, is one promising example of involvement of a less developed State in space cooperation.

Conclusion of framework treaties across the board, whether or not any cooperation is planned or might become conceivable in foreseeable future, of course, is not the best way to alleviate the problem of limited access of less developed nations to space capabilities. For one, a framework treaty *per se* does not equal joint activities; there is a long way between the establishment of a legal basis and its practical application. More importantly, conclusion of treaties concerning cooperation when in reality no cooperation is expected undermines the integrity of international law and can hardly be found compatible with the principle of *pacta sunt servanda*. Therefore, while the practice of concluding framework treaties with the States not yet involved in space activities have brought many positive results and, thus, should be commended, it should only be commended if conclusion of a treaty is supported by a good-faith intent to proceed with cooperation.

While both Russia and the United States conclude framework space agreements further complemented by project-specific implementing arrangements, the two States have different approaches to the duration clauses of their framework treaties: whereas the United States tends to limit the treaty duration to ten years with a possibility of its extension subject to agreement of the parties, Russian treaties normally include either a ten-year duration clause with automatic extension or provide for an indefinite duration period. The substance of the framework space treaties of the two States, at the same time, is fairly similar. Legally speaking, there is no indication as to reasons behind the varying duration clauses,⁸⁴ and it may be assumed that the difference is caused predominantly by political contemplations or preferences.

⁸⁴ Political and legal sciences both distinguish between duration clauses that require tacit and express consent to

It is suggested that a limited term that may be extended by mutual agreement of the cooperating States is preferable, primarily due to its tendency to encourage prompt commencement of cooperation. A treaty with a limited term incentivizes the States to use the benefits of having a legal basis in place while the treaty is still in force, whereas a presumably indefinite period of the treaty duration allows postponing joint activities; and nothing precludes the States from extending the term should cooperation prove beneficial when the ten-year period is over. This, however, is a subjective point of view of the author that is based primarily on socio-political reflections of the cooperative dynamic. From a legal standpoint, the two approaches to the duration clause are equally reasonable.

The requirement for release of scientific information that can be found in every US bilateral space treaty should be commended. Designation of outer space as "a province of mankind" is not an extravagant way of saying that outer space is above every single person on earth; it is a guiding principle that States must strive to follow in their national and cooperative space activities. The least costly, but nevertheless one of the most effective ways to incorporate this principle is to provide public access to scientific results of space activities. Space-based science delivered technology that changed the world,⁸⁵ but it still remains an asset available to a minority of States. Release of scientific results makes outer space one step closer to truly being a province of mankind. And it is only unfortunate and inconsiderate that Russia has decided against promotion of enlightenment in its bilateral practice.

Finally, the treaties concluded in the recent years adopted the practice of including a comprehensive list of definitions used in the treaty. It is suggested that this practice should be continued. Framework treaties, creating the general legal basis for cooperation, aim at establishing a solid foundation for future joint endeavors. One of their tasks is to ensure that

extension of the treaty, they attribute both types of clauses to States' willingness to provide a 'form of insurance' against continuation of cooperation against their will. E.g., *see*, B. Koremenos, *Contracting Around Uncertainty*, 99, 4 Am. P. Science Rev. 549-565 (2005), cited in M.S. Copelovitch and T.L. Putnam, *Context Matters: International Institutions and the Limits of Rational Design*, Paper presented at the annual meeting of the Midwest Political Science Association 67th Annual National Conference (2009), available at

<http://citation.allacademic.com/meta/p361335_index.html. See also, L.R. Helfer, "Flexibility in International Agreements," in J. Dunoff and M.A. Pollack (eds.), Interdisciplinary Perspectives on International Law and International Relations (2013), at 190; A. Aust, Modern Treaty Law Practice (2013), at 251. Therefore, despite the obvious differences between the two duration clauses, from both legal and political perspectives, they represent cautious approach of States toward envisioned duration of future cooperation, whereas the major difference is the degree of cautiousness.

⁸⁵ For a concise list of the most drastic changes space science has brought into people's lives *see*, T. Radford, *What Has Space Exploration Ever Done for Us*?, The Guardian, 6 February 2013, available at http://www.theguardian.com/science/2003/feb/06/spaceexploration.

cooperation triggers as few controversies and disagreements between the cooperating States as possible; and uniform interpretation of terms is one of the valuable tools in achievement of this task.

Overall, there is a tendency toward greater uniformity of structure and content of bilateral space treaties, which should be continued. The recent scholarly work after analyzing three bilateral space treaties in specific areas of cooperation concluded: "[T]hey may well serve as blueprints for future occasions where states want to combine their respective launcher technology and launch port operations or their launch operations and their remote sensing technology."⁸⁶ The bottom line is that borrowing best practices from the legal experience of other States may well be beneficial for the cooperation. Every State state an individual approach should be eliminated from space cooperation. Every State is unique in its space capabilities; and inventive genius and competition are the factors that fueled the drive toward the high-technology world, as we know it today. The continuing utilization of the framework treaty-implementing arrangement structure of cooperation would allow achieving uniformity and adoption of best practices on the one hand, and tailoring the guiding legal regime to those grand endeavors that are yet to be seen, on the other.

⁸⁶ F.G. von der Dunk, "International Space Law," in F.G. von der Dunk, Handbook of Space Law (2014), at 118.

Chapter 14. Results: Forms of Cooperation and Their Applicability

In the introductory chapter of the book it has been suggested that cooperation is a complex multi-faceted phenomenon that can be analyzed from a legal, political, historical or socio-economic perspective; each viewpoint would highlight certain features of cooperation, emphasize different functions of cooperative activities and offer somewhat varying conclusions as to the importance and effectiveness of cooperation. Since the present research is legal in its perspective, albeit socio-economic and, to a limited extent, political considerations have also played a role in the preceding analysis, in this final chapter the conclusions will be limited to the role of cooperation in promotion of the legal order for outer space activities and in enhancement of the collaborative efforts of States through utilization of various legal instruments.

It should be recalled that the goal of this book is to propose the most effective forms of international legal cooperation in attainment of future cooperative space projects. The analysis of twelve contemporary mechanisms of cooperation has provided sufficient empirical basis for broader theoretical conclusions. It, however, has not yet provided the necessary theoretical basis for the conclusions the book is aiming at. Therefore, before proceeding with the overview and summary of the results of the preceding chapters, theoretical considerations regarding the need for cooperation and its role in modern international community should be addressed.

This chapter will be structured in three parts. The first one will provide general reflections regarding the phenomenon of cooperation, identify several influential theoretical approaches to the analysis of cooperative activities and suggest why States choose different methods of cooperation in achievement of their goals. International space law is a part of general international law and, more broadly, a part of international relations; hence, while conclusions of this part will focus on outer space activities, they will unavoidably be premised on theoretical deductions that have their empirical basis in various other areas of States' collaborative activities.

The second part of the chapter will present a summarizing overview of the conclusions made throughout the book. For the sake of clarity and convenience, the overview will be presented in the form of a table outlining conclusions regarding currently existing forms of cooperation. At that point a distinction between a mechanism (or a method) of cooperation and a

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form of cooperation will be explained in greater detail. Simply put, a form of cooperation is a broader category that may include several mechanisms of cooperation that are characterized by a substantial similarity in their institutional structure. Based on the six criteria analysis of the twelve mechanisms of cooperation, the currently existing forms of international legal cooperation will be enumerated. Further, their institutional features will be discerned and the matters that can be better addressed using each one will be identified. Finally, the chapter will be concluded by broadly formulated suggestions for future development of international legal cooperation in exploration and use of outer space.

14.1 Why Cooperate?

"It is undisputed that the dominant contemporary paradigm for international cooperation is liberal internationalism. The postwar story of cooperation is one of an ever-increasing number of international institutions, constituted by a legally binding treaty, with expanding powers of governance. The paradigmatic case is the United Nations system: an international organization, constituted by treaty, which, in turn, has generated many other organizations and treaties."¹

The United Nations indeed exemplifies all sides of contemporary international legal cooperation: it is a universal international intergovernmental organization with a broad mandate, based on an international treaty of a similarly general scope; it has the right to consider most matters of international relations and adopt decisions, some of which are legally binding on all States; it has an extensive institutional structure that includes not only specialized organs, but also dispute resolution procedures and judicial organs. In this sense, however, the United Nations is hardly paradigmatic since no other currently existing international organization comes close to the United Nations in terms of institutional structure, breadth of mandate and legal authority. Rather, the United Nations is an example of quintessential modern international legal cooperation, whereas other international mechanisms are 'watered-down' drops of its quintessence.

Moreover, creation of the United Nations was triggered by a quite peculiar set of circumstances. Certain reasons behind its creation have also served an impetus toward creation of many other currently existing mechanisms of cooperation, but none has the same complex

¹ K. Raustiala, *The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law*, 43 Va. J. Int'l L. 1 (2002), at 17.

intricate network of legal, political and economic considerations underpinning its existence. In other words, the United Nations' purposes and reasons for existence as well as its institutional composition embrace the whole spectrum of such purposes, reasons and various elements of institutional composition existing in modern international law. For this reason, the United Nations is not a proper subject for the analysis aiming at understanding reasons behind international cooperation in general, simply because any conclusions would be too broad and thus inapplicable to any other mechanism of cooperation, except for the United Nations itself.

Generally, analysis of any singular mechanism of cooperation would not be sufficient to draw conclusions applicable to each and every other mechanism of cooperation. Likewise, analysis of just one category of international organizations cannot explain the need for cooperation using treaties or conferences. The preceding analysis, covering twelve different mechanisms of varying membership, legal force, goals and institutional composition, is premised precisely on this understanding. The following abstract considerations are premised on the conclusions made by both legal scholars and scholars of social and political sciences in an attempt to embrace a representative, and thus widely applicable, spectrum of reasons behind cooperation. Some opinions referred to are expressed as applied to a certain category of mechanisms of cooperation, most often to international organizations; that limitation will be disregarded in appropriate cases, because the distinction between the overarching reasons for cooperation using an international organization and a less-institutionalized entity are often negligible, at least for the purposes of drawing abstract conclusions.

It should be acknowledged that while cooperation using international treaties and cooperation by way of international conferences are substantially different, the ultimate goal, just as in the case of an international organization, is the achievement of a state of coordination between activities of participating nations in a specific area. In this sense, therefore, the overarching reasons for cooperation are substantively similar, or at the very least compatible, for all three categories of cooperation. In the preceding chapters, where the analysis focused on the *practice* of cooperation, the purposes of each reviewed mechanism were addressed in great detail. And in this part of the book, which focuses on *theoretical* analysis of the phenomenon of cooperation, the review will proceed on the abstract level, disregarding specifics not affecting the overall motivation for cooperation.

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There are generally two types of cooperation: simple and difficult. A pure coordination problem, where all players have an incentive to cooperate, but cooperation requires that they coordinate their actions, is characteristic of simple cooperation. Relations between the United States and Canada are a good example of simple coordination. The 'prisoner's dilemma' is a typical problem of difficult cooperation.² It is easy to guess that cooperation in cases of simple cooperation is more easily achievable than in difficult situations. Despite the seeming obviousness of the preceding discussion, two considerations should be emphasized: first, States not always resolve simple cooperation issues using appropriate, read easy and informal, approaches to cooperation; and second, one matter can evolve from being a simple cooperation problem to becoming a difficult one.

In some situations a potential conflict is not obvious and might be perceived as a simple coordination problem. It has been suggested that the Antarctic Treaty,³ and quite possibly the Outer Space Treaty due to regular comparison of the regimes of the two treaties⁴ and comparable, although not in a strictly legal sense, statuses of the Antarctica and that of outer space as *res communis*, is one such example. The Antarctic Treaty bans the establishment of military bases and the testing of weapons on the continent, suspends territorial claims and sets up inspection systems. When the Treaty was signed in 1959, the prohibitions of the treaty had little practical effect because States were already generally in compliance; in this sense, the treaty was trying to resolve a coordination problem. "Looking forward from the time of the signing, however, it is plausible that the parties had concerns about how the importance of Antarctica and therefore the payoffs to the parties might change. If the interests of the parties changed, whether for economic ([for example], the discovery of oil or mineral reserves), strategic, or other reasons, the game might become a prisoner's dilemma. By establishing a treaty rather than a more informal set of norms, the parties solidified the cooperative regime."⁵

Thereby, it might be concluded that at the time the Outer Space Treaty was adopted, cooperation in outer space could still be classified as easy cooperation because States were generally in compliance with prohibitions contained in the Treaty. Over time, however, with

² Cf., A. Guzman, How International Law Works: A Rational Choice Theory (2008), at 25-29.

³ The 1959 Antarctic Treaty, done December 1, 1959; entered in force June 23, 1961. 12 U.S.T. 794, 402 U.N.T.S. 71, 19 I.L.M. 860 (1980).

⁴ E.g. *see*, M.S. Race, "Environmental Protection: Comparison of the Antarctic and Outer Space Treaties," in P. Berkman et al. (ed.), *Science Diplomacy: Antarctica, Science and the Governance of International Spaces* (2011), at 143-52.

⁵ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 57.

growing exploration and use of outer space, the area has become more competitive and the benefits of being involved in outer space activities have drastically increased. The sequence of technological, economic and legal events reviewed in detail in Chapter 1 has led to the status of outer space as a highly valuable resource demanding formal regulation, where cooperation ceased to be a simple coordination game, where each participant does not lose anything due to cooperation and only benefits from such low-cost coordination.

Outer space, just as a number of other areas, is a shared common limited resource. "The promise, as confirmed by experience both within particular states and internationally, of the greater achievement which so often inheres in the organized inclusive exploitation of a sharable resource is too well known, and the necessities for greater achievement are too compelling. The different peoples and communities can be expected increasingly to demand the establishment, for many different value objectives, of new forms of organization which will both assemble base value largely irrespective of existing territorial boundaries and directly engage in space operations."⁶ The 'prisoner's dilemma' is the most obvious conflict arising out of joint usage of a common shared limited resource,⁷ which, in the case of space exploitation, is aggravated by the 'free rider problem'.⁸

In the context of outer space activities, cooperation becomes more beneficial than noncooperation only in the long-term perspective; in the short-term perspective a State might often expect greater benefit from non-cooperation. To illustrate this, a scenario of the prisoner's dilemma is explored below. For the purposes of the ensuing discussion States should be presumed to be rational actors acting out of a rational desire to maximize its benefits, despite the fact that in real life States are often acting irrationally.

Real-life international legal relations, of course, are much more complicated than even an asymmetrical two-round prisoner's dilemma game, and are affected by a multitude of explicit and implicit considerations of all participants. The outcome, however, can be predicted using the simplified model of the prisoner's dilemma game: a selfish, or in terms of the theory – a rational choice (to betray the accomplice in the hope to get a lower sentence for cooperation with a detective) is the most beneficial, but the chances that the accomplice would as well betray the

⁶ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 872.

⁷ For an extensive review of the Prisoner's Dilemma *see*, S. Kuhn, "Prisoner's Dilemma," in *Stanford Encyclopedia of Philosophy* (2014), available at http://plato.stanford.edu/entries/prisoner-dilemma/#Bib.

⁸ For an extensive review of the Free Rider Problem *see*, R. Hardin, "The Free Rider Problem," in *Stanford Encyclopedia of Philosophy* (2003), available at http://plato.stanford.edu/entries/free-rider/#pagetopright.

other are the highest, leading both prisoners to a less beneficial result than that that could have been achieved should both have remained silent in a 'cooperative' effort. Having once experienced the negative outcome of a non-cooperative behavior, in the second round a rational actor would more likely opt for cooperation in an attempt to achieve a more beneficial result. A multitude of factors affect development of the model, and more so of an actual behavior, but the lesson to be learned is that cooperation, all else constant, is the preferred route for rational actors in the long-term perspective.

The free rider problem is another complication that might negatively affect cooperation; however, as it will be shown below, non-cooperation is again expected to be more beneficial only in the short-term perspective, and in the long-term perspective benefits of cooperation tend to increase. The free rider problem incentivizes States to covertly abstain from cooperation to benefit from others' compliance and at the same time limit their own expenses. But in the long-term perspective, which is the one that should be considered to understand reasons behind cooperation in general, the strategy of covert abstention is counter-productive and either leads to reputational sanctions for the abstaining State,⁹ or to non-achievement of the proclaimed goal because a majority or a significant number of cooperating actors decided to abstain from cooperation hoping to piggyback on others' compliance. In the most general terms, hence, rational actors are more likely than not to choose cooperation in situations of conflicting interests that are expected to last for a while.

Therefore, States' cooperation in both the context of a prisoner's dilemma and the free rider problem is triggered by a rational desire to achieve the most beneficial outcome. This conclusion, however, does not imply that cooperation is always a preferable option for States; to the contrary, States are hostile to cooperation and only would choose to cooperate if it increases their payoffs, which it often does in the case of an existing conflict with regard to a common shared limited resource. The critical factor here is whether the payoffs of cooperation outweigh risks and inconveniences of cooperation.

⁹ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 33 ("The term "reputational sanction" refers to the cost imposed on a state when its reputation is damaged. Reputational sanctions, then, are not punishments at all, or at least they are not intended as such. When a state makes a compliance decision (i.e., when it chooses to comply or violate) it sends a signal about its willingness to honor its international legal obligations. Other states use this information in this decision to adjust their own behavior. A state that tends to comply with its obligations will develop a good reputation for compliance, while a state that often violates obligations will have a bad reputation. A good reputation is valuable because it makes promises more credible and, therefore, makes future cooperation both easier and less costly.").

So the basic premise for cooperation is the resolution of a conflict with regard to a common shared resource in a way that yields optimum benefits to all participants. In certain situations States would opt for deviation from cooperation or abstain from cooperating at all, but these decisions are triggered by varying factors that cannot be easily summarized in one abstract model. So for the present purposes it is suggested to assume that digression from cooperative behavior is caused by case-specific circumstances, which should be reviewed on a case-by-case basis, but that in general cooperation provides the optimum outcome, and hence States engage in cooperation primarily to achieve one. This, however, is an exceptionally broad conclusion that can hardly satisfy a research looking to answer the question of why do States choose to cooperate.

In most general terms, cooperation is an act of delegation of individual States' powers. In essence, cooperation results in limitation of States' freedom of action for the sake of successful achievement of a cooperative goal. "The delegation is premised upon the division of labor and gains from specialization."¹⁰ These two gains are common for all categories of cooperation. Conferences provide necessary specialization and are attended by States' representatives focusing on issues under consideration; treaties focus on certain aspects of cooperation and regulate legal issues, leaving, in most cases, technical issues to be resolved through other means; international organizations are quintessential examples of these two features that hardly need further elaboration.

International organizations are also the 'perfect' agents of their principals – States. They provide an opportunity not only for short-term delegation, as conferences do, and are not static as treaties are. They create a dynamic environment where cooperative goals can be performed within the limits and by the rules established by member-States. Thus, international organizations are said to have five additional benefits that induce delegation: managing policy externalities, facilitating collective decision-making, resolving disputes, enhancing credibility and creating policy bias.¹¹

As the benefits from delegation increase, all else constant, States are generally more likely to delegate authority. The higher the benefits of delegation, particularly gains from division of labor and specialization, the higher the chances that these benefits would outweigh

¹⁰ D.G. Hawkins et al., "Delegation under Anarchy: States, International Organizations, and Principal-Agent Theory," in D.G. Hawkins et al. (eds.), *Delegation and Agency in International Organizations* (2206), at 13. ¹¹ *Id*.

risks and inconveniences of cooperation. Moreover, if the benefits from division of labor and specialization are significant, it increases the chances that a larger number of States would consider such cooperation beneficial. That is so because risks and inconveniences associated with cooperation might be quite different for different States. For example, if financial contributions to the budget of a new organization are calculated based on gross domestic product, membership in such an organization might turn out to be more burdensome for a State with a large gross domestic product than that for a less wealthy State, while providing similar benefits from cooperation to both States. Here the question for a wealthier State would be whether the benefits from cooperation outweigh the financial burden. If the benefits from cooperation, higher financial burden is less likely to deter a State from joining the organization, therefore increasing the chances of delegation.

Scholars have identified a multitude of other benefits of concerted actions using one or the other category of cooperation.

One advantage of organized strategies, in contrast with unrelated and diverse unilateral strategies, is in permitting a greater flexibility and range in choice of the goals of activity. When assets are employed economically, total opportunities are enhanced. Another advantage of organized strategies is in the minimization of harmful interference. Rules of the road and of the game are much more easily established and maintained, with corresponding increases in efficiency, when strategies are organized. Strategies are ambivalent in their bearing upon military and non-military purposes and may, finally, be more readily controlled in their dedication to non-military purposes when participation in them is organized, rather than unorganized.¹²

Ultimately, cooperation allows achieving the optimum result, using resources more efficiently, ensuring easier and more effective control, benefitting from specialization, limiting externalities and lowering the costs by way of enhancing credibility. There is one factor that unites all these positive gains from cooperation: the economy in the broadest sense of the word. Cooperation lowers the costs of achieving the same goal compared to a State acting solo. In case of a prisoner's dilemma conflict, however, cooperation leads to the optimum result, while a digression from cooperation yields the deviating participant the highest gain. It should be recalled, though, that the highest gain could only be achieved once: unilateral digression from cooperation undermines a State's reputation, thus creating the risk of being mistrusted in the next

¹² M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 883.

conflict, thereby, raising costs in the long-term perspective. In other words, "a violation by one side would likely provoke violation by the other side. The one to violate initially would enjoy a one-period gain, but thereafter the [agreement] might collapse, in which case both parties would return to the noncooperative outcome,"¹³ which is the least beneficial outcome for all parties.

The bottom line is that States weigh their ability to realize their aims by acting alone versus acting in concert with other States. "Powerful states are able to obtain their goals through their own influence and capabilities. As a result, they have a more attractive "outside option" and, if they choose to do so, can move effectively to realize their preferences."¹⁴ Thus, it is suggested to recognize the economy, in both a financial and a transactional sense, as another important motivation behind resorting to cooperation.

Financial economy refers to the State's ability to achieve the result by sharing expenses with its partners. Invitation of Russia to the ISS project, it should be recalled, was in part triggered by the budget limits placed on the project by the US Congress. As a result of cooperation with Russia, the ISS project was sufficiently funded and so became operational within a shorter period of time.

Transactional economy refers to the results a State achieves if it is viewed as a reliable rule-abiding partner. Basically, a State that keeps its promises is a more trustworthy partner, who is less likely to be suspected of possible future violations. So cooperation with such a State involves fewer risks, in the end resulting in lower transactional costs of cooperation negotiation and maintenance. For example, within the COSPAS-SARSAT Programme adoption of every decision requires unanimity of all four participating States. The period when the Programme Agreement was negotiated was marred by controversies not only between the United States and Soviet Union, but also between the United States and European countries. So the choice was made in favor of a more complex, and therefore more expensive, procedure of decision-making as a result of conflicts and mistrust between the cooperating States.

Financial economy is a powerful incentive toward cooperation for a majority of States; transactional economy might be even more important than the financial one, but only in the longterm perspective. Considerations of economy are quite complex and would be decided by each State on a case-by-case basis. For example, financial economy might be a negligible factor when

¹³ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 32.

¹⁴ D.G. Hawkins et al., "Delegation under Anarchy: States, International Organizations, and Principal-Agent Theory," in D.G. Hawkins et al. (eds.), *Delegation and Agency in International Organizations* (2206), at 22.

considering issues pertaining to national security, while transactional economy with its ability to influence State's reputation along with financial expenses in the long-term perspective might prove a quite influential factor in arriving at a decision of whether to cooperate and if so, using what methods.

Being the quintessential incarnation of cooperation, international organizations are the most often analyzed category of cooperation. A recent article eloquently analogized an international organization to Dr. Frankenstein's monster. "Dr. Frankenstein created his monster in an attempt to improve on a world populated only by humans. States create IOs with the hope of enhancing international cooperation beyond what can be achieved by states alone. Like Frankenstein's monster, IOs created by states may behave differently than expected. There is always a risk that an IO will impact the system in ways that harm, rather than help, the interests of states."¹⁵ While the Frankenstein problem is real, there are only two ways to avoid the problem: not to create an entity with separate legal personality, or effectively deprive an organization of any important or even somewhat meaningful powers. The author, however, arrives at a conclusion that greater reliance on international organizations would produce benefits that outweigh the risk of creating a monster.

By and large, any mechanism of cooperation, be it an international organization, a treaty or an international conference, is created not because States are unable to achieve the same goals on their own, but because through cooperation they are able to do necessary things better or more easily than they would acting individually. Therefore, gains from cooperation must significantly outweigh limits imposed by the need to act with reference to wishes of partners in cooperation. A choice of an appropriate mechanism of cooperation draws the line between cooperation and noncooperation. If States, as nowadays in the area of space activities, are not willing to bind themselves with new legal obligations, a proposal to cooperate through such a mechanism almost by definition would stop there. The preceding reflections are applicable virtually to all spheres of cooperation involving a common shared limited resource, and particularly to outer space, which is undoubtedly an example of such.

Despite the obvious spatial difference between outer space activities and all other international relations, Jenks correctly noted: "Man's activities in space are a projection of his life on earth. It is for this reason that the suggestion sometimes made that responsibility for

¹⁵ A. Guzman, Doctor Frankenstein's International Organizations, 24 Eur. J. Int'l L. 999 (2013), at 1000.

international action in respect of space matters should be concentrated in a special agency for the purpose is so lacking in realism. Space telecommunications are by their nature a part of telecommunications generally, the demilitarization of space cannot be divorced from the general problem of disarmament, and the problem of law and order in space is but a new phase of the perennial problem of peace on earth and goodwill among men.¹⁶ So while appreciating the unique physical characteristics of outer space, its legal regulation is earth-bound.

The seminal scholarly work on space public order suggested: "The immense expanses of outer space, with its rich and varied resources, permit a high degree of shared, cooperative exploitation. As a medium of movement and travel, as a ground for scientific and military experimentation, as a location for the establishment of permanent bases and as a resource for exploitation, outer space may be enjoyed by many participants simultaneously, subject only to the requirements of safety and order."¹⁷ Another scholar from the same era opined that space cooperation had major policy as well as legal grounds: "Such [cooperation] is clearly in the general spirit of the recognition by the Declaration of Legal Principles [of 1961] of the "common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes", and the desire expressed therein to contribute to "broad international cooperation in the exploration and use of space" and thereby to "to the development of mutual understanding" and "the strengthening of friendly relations between nations and peoples"; it constitutes a method of giving effect to the principle that "the exploration and use of outer space shall be carried on for the benefit and in the interests of all mankind". Cooperative arrangements relating to space are becoming increasingly important in practice."¹⁸

These views, dating back to the 1960s, correctly noted factors that further contributed to proliferation of space cooperative endeavors. They, however, do not offer a space-specific reasoning for cooperation that can be characterized as substantially different from the factors motivating cooperation in general outlined above. Throughout the research only one opinion suggesting existence of a space-specific motivation for cooperation has been identified, which, however, was mostly relevant during the first decades of the space era and has only limited relevance today.

¹⁶ C.W. Jenks, *Space Law* (1965), at 316.

¹⁷ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 516.

¹⁸ C.W. Jenks, *Space Law* (1965), at 214-15.

The argument is premised on the fact that exploration and use of outer space is a notoriously costly enterprise, especially when military-related uses are considered. "Such major space programs will continue to require that vast expenditures and great individual sacrifice, very few, if any, territorial communities will be able to afford efforts unilaterally without in the process becoming "garrison states." It may be doubtful whether in a democracy it will be possible to persuade a majority of citizens voluntarily to accept prolonged deprivations of many values in exchange merely for a promise of rich compensation in the future from activities in outer space."¹⁹ The authors concluded that continuous maintenance of space programs on a unilateral basis would be only possible with the emergence of the regimes with the characteristics of despotism.

Therefore, cooperation with its allocation of expenditures among participants of the joint enterprise would prevent a shift of formerly democratic regimes to autocracy in their attempt to maintain space supremacy. Nowadays, the threat of such a transformation does not seem realistic for stable democracies, but might still bear certain relevance for newer democracies with a traditionally strong favoring of a powerful military. The broader conclusion is that in the context of outer space activities the gains of economy, particularly of financial economy explained above, are a greater incentive toward cooperation than in many other areas, where costs of unilateral activities are not so prohibitively high. So even this argument, strictly speaking, does not offer any new reasoning for why States choose to cooperate apart from those already identified.

Acknowledging that establishment of outer space legal cooperation had many peculiar characteristics that cannot be found in any other area of international cooperation, especially the unprecedented pace of commencement of cooperation and the unprecedented level of cooperation between the Cold War rivals, overall it was triggered by the same set of overarching factors. This conclusion is of great importance for the following discussion. The goal of the present book is to propose the most appropriate forms of cooperation for different future space projects. The search for such forms is two-fold: on the one hand, any recommended form of cooperation has to have an adequate institutional structure to attain the goals of the cooperative endeavor, and on the other, it has to offer significant benefits to stimulate cooperation in the first place. While the analysis of the twelve modern mechanisms of cooperation is sufficient to

¹⁹ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 84-85.

identify the first element, determination of the second element is only possible by weighing institutional benefits provided by the form of cooperation against the benefits States usually look for in cooperation. Division of labor, gains from specialization, and financial and transactional economy are the three predominant motivations for cooperation.

Therefore, States are only willing to cooperate in a good faith manner when the institutional structure of a particular mechanism is capable of performing necessary functions, and if benefits from division of labor, specialization and economy outweigh the risks of limiting their autonomy, or the risks of 'creating a monster'. It was suggested: "It is of paramount importance that the future development of space law should be shaped and molded by a continuing partnership of bold statesmanship, imaginative legal vision, and thorough grasp of the scientific and technological factors involved."²⁰ In the proposed interpretation the "bold statesmanship" is taking the risks of limiting States' authority, the "imaginative legal vision" is the choice of an efficient institutional structure, and the "grasp of scientific and technological factors" is a greater reliance on division of labor and specialization. These factors will serve as a theoretical basis in a search for the most appropriate forms of cooperation in exploration and use of outer space.

14.2 Summary of Mechanisms of Cooperation

Findings of the preceding twelve chapters are summarized in Table 1. It outlines a category each mechanism belongs to, the features of each mechanism that are deemed important for the overall functioning of the mechanism, and the goals of the mechanism as they are stated in underlying documents and clarified by subsequent practice; the table also proposes conclusions as to effectiveness of each mechanism. It should be stressed that the form of the table forces omission of important details and usage of over-generalized conclusions. But this format provides a convenient at-a-glance overview of the results of the research and therefore is deemed appropriate for the present purposes. Overall, it is suggested that two mechanisms are ineffective in achieving their goals and one mechanism – the International Civil Aviation Organization – might not be effective in performance of space-specific functions despite its undisputed success in civil aviation.

²⁰ C.W. Jenks, Space Law (1965), at 313.

Initially, the methodology used in this book has been premised on the assumption that generally three categories of mechanisms of cooperation exist. The summary table lists four categories: international organization, treaty, conference and hybrid. The last category of cooperation has been identified as a result of the analysis, which showed that some mechanisms of cooperation simply do not fit in any traditional category. And though historically two out of three identified hybrid mechanisms were created in the 1980s, they have never been treated as such from a theoretical perspective. The COSPAS-SARSAT Programme was classified by some scholars as an international organization, and the Committee on Earth Observation Satellites was generally perceived to be an 'informal' entity. Nowadays, this theoretical ambiguity is substituted by a less rigid approach to understanding of the existing ways and means of international cooperation.

Since the goal of the book is to identify the most appropriate *forms* of cooperation, a simple enumeration of mechanisms and categories of cooperation they belong to is not enough. The term 'form of cooperation' is not used consistently in different contexts,²¹ so the present definition is proposed exclusively for the purposes of the present book. The form of cooperation is understood as a general denomination for mechanisms of cooperation that pursue substantially similar cooperative goals and possess an inextricable institutional connection. Mechanisms of cooperation designated to one form of cooperation need not be institutionally identical or perform exactly the same goals; rather, they should be substantially homogeneous in their cooperative goals and rely on similar sets of institutional characteristics in their work. Application of the definition to particular mechanisms will further clarify the definition.

Based on the summary provided in Table 1, it is proposed to identify five forms of cooperation currently used in international legal cooperation of States in exploration and use of outer space. These are: the United Nations system, technical international organizations, hybrids, framework-contract-treaties and regional space international organizations.

²¹ E.g., in the US federalism context the term is used to describe influence of state law, federal law and decisions of the US Supreme Court on interpretation of federal constitution and respective state laws. One form of such cooperation is voluntary adoption by the state of legislative standards set by the Congress or by the latter of those set by the states. (*See*, Foreword, 23 Iowa L. Rev. (1937-1938), at 457.) By contrast, the Maastricht Treaty of 1992 states that it "is founded on the European Communities supplemented by the policies and forms of cooperation introduced by this Treaty." (*See*, D. Vataman, "Considerations on the Evolution of the Legal Personality of the European Union," in T.U. Maiorescu, 2012 Law Annals (2012), at 174.)

14.2.1 United Nations System

The form of the United Nations system includes three mechanisms: the UNISPACE conferences, the Committee on Peaceful Uses of Outer Space (COPUOS) and the Outer Space Treaty with three elaborating conventions. Despite the obvious fact that these three mechanisms belong to different categories of cooperation, seemingly undermining the methodological approach endorsed in this book, evaluation of these mechanisms in the context of the definition of a form of cooperation and taking into consideration factors favoring cooperation identified earlier in the chapter, makes it clear that no controversy exists.

From an institutional perspective, all three mechanisms are inextricably connected by way of their inclusion in the United Nations system. The UNISPACE conferences are being held using United Nations facilities, they have been commenced pursuant to political decisions made within the United Nations organs, they have seen broad participation primarily due to their endorsement by the United Nations, and generally they have relied on the United Nations influence in achievement of their goals. COPUOS is an organ within the structure of the United Nations; hence, by definition it cannot exist outside the organization's system. The Outer Space Treaty along with three elaborating conventions is the direct result of efforts undertaken by members of the United Nations using the organization's capabilities.

More broadly, all three mechanisms are the creations of the United Nations and would have hardly been possible in the absence of the organization. The United Nations with its immense political authority, organizational capacity and broad mandate made possible coming into existence of these three mechanisms. It should be recalled that proposals for establishment of a specialized universal space organization have been made since the early years of the space era, the earliest one dating back to 1959.²² Although analogous proposals saw some support over the years, the mainstream opinion has always opposed such proposals. Apart from doubts with respect to the ability of such an organization to gain wide support of States and hence to address issues of outer space exploration and use in an effective way, the United Nations has been always seen as the most authoritative international organization that can be trusted to address issues of outer space exploitation. The bottom line is that from the early years of the space era, when neither the legal regime, nor the cooperative network had been yet established and the chances of creation of a specialized space organization had theoretically been higher, the United

²² See, M. Smirnoff, "The Role of the I.A.F. in the Elaboration of the Norms of Future Space Law," in *Proceedings* of the International Institute of Space Law (1959), at 147.

Nations was viewed as the tool for establishment of the general principles of international space law. None of the three mechanisms, or even their analogues, could have been created outside the United Nations.

The UNISPACE conferences, COPUOS and the Outer Space Treaty rely not only on the United Nations administrative capabilities, but also on its authority and universal membership of all States, which provide every decision adopted within the system with significant credibility on the international plane.²³ Simultaneously, they rely on the broad mandate of the United Nations in a sense that all three mechanisms address a wide range of questions pertaining to outer space activities. The agenda of the UNISPACE conferences has been gradually expanding over the years; COPUOS is a unique body with a broad and open mandate, which allowed its members to raise and consider various topics related to the use of outer space as outer space activities have been evolving;²⁴ the Outer Space Treaty and the three elaborating conventions have transformed, at least in part, into customary norms and continue to gain more and more support among nations. All these dynamics have been possible primarily due to the all-embracing mandate of the organization within which they exist.

Just as the three mechanisms depend in their existence on the United Nations, the United Nations depends on these mechanisms for its relevance in matters of outer space. In a sense, these are the incarnations of the United Nations 'organs' dealing with questions of outer space exploration and use. Should they be eliminated, the organization's role in space matters would be all but wiped out.

Considering purposes of these mechanisms, it is suggested that they are also inextricably connected to the United Nations. The Outer Space Treaty and the elaborating conventions have the most static purpose of all three, namely the establishment of the general legal regime for outer space activities. It has been noted multiple times that adoption of a new space treaty is unlikely; adoption of a space treaty refining general principles of outer space activities along the lines of the proposal of the Russian Federation of 2000 is even more unlikely.²⁵ Adoption of the Outer Space Treaty and the elaborating conventions was possible only within the framework of

²³ Cf., M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, Law and Public Order in Space (1963), at 109.

²⁴ Cf., K.-U. Schrogl, Is UNCOPUOS Fit for the Future: Reflection at the Occasion of the 50th Session of its Legal Subcommittee 2011, 60 ZLW 93 (2011), at 93.

²⁵ Proposal by the Russian Federation for a New Agenda Item "Advisability of Developing a Single Comprehensive United Nations Convention on the Law of Outer Space" for Consideration by the Legal Subcommittee at its fortieth session as a single issue/item for discussion, A/AC.105/C.2/L.220 (2000).

the United Nations during the first decades of the space age, when the political and legal environment was uniquely favorable for such an endeavor. The chances of all necessary factors coming together again are slim. Similarly unlikely is the situation when negotiation of a comprehensive space treaty is supported by a majority of States.

The General Assembly resolution establishing COPUOS defined the Committee's mandate in rather unspecific terms, leading to varying views on the role of COPUOS, as discussed in Chapter 3. The Committee has been evolving over the years of its existence and has gone through four stages, and during each stage it has been performing quite different functions. At the same time, the Committee has always been focused on the review of the general issues pertaining to the legal regime of outer space activities of sovereign States. State-centricity of the Committee is capable of performing. While it has been earlier suggested that the Committee has the potential for further development, it would continue to be restricted by the limits defined above. The institutional structure of the Committee is adequate, with caveats discussed at length in the pertinent chapter, for the functions bestowed onto it in 1959 by the General Assembly resolution; but it is definitely not appropriate to deal with a multitude of other space-related matters, especially in the area of space applications.

The UNISPACE conferences are the most flexible and adaptable mechanism, but even so they remain inextricably connected to the United Nations. Topics discussed at the UNISPACE conferences are influenced by the discussions within the United Nations General Assembly and COPUOS; decisions adopted at the conferences have political value primarily due to their United Nations' endorsement; recommendations of the conferences are implemented owing to support provided by the United Nations machinery. Theoretically, the success of the UNISPACE conferences may be repeated outside the United Nations framework, but practically this scenario is quite unlikely precisely due to the institutional and substantive connection between the conferences and the United Nations, particularly the other two space mechanisms of the organization.

The general conclusion is that none of these three mechanisms can be replicated outside the United Nations system. This conclusion is premised on both the unique nature of the United Nations, which is a universal organization with a very broad mandate that does not currently have any analogues, and the history of these mechanisms' establishment and development that

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cannot be repeated: despite the claim that history repeats itself, the Sputnik 1 flight with its earthshattering consequences for the perception of humans as Earth-bound creatures can never happen again. Similarly, none of these mechanisms can be used to fulfill functions different from those they have been successfully performing. The Outer Space Treaty cannot be reasonably expanded by way of addition, say, technical annexes to regulate space traffic; COPUOS cannot be transformed into an agency overseeing space traffic management; and the UNISPACE conferences can hardly become a 'plenary organ' developing technical annexes to the Outer Space Treaty.

The first identified form of cooperation is an example of how different mechanisms might be substantially similar in their goals and institutional approach without belonging to the same category of cooperation. The mechanisms designated as belonging to this form of cooperation have played a paramount role in establishment of the legal regime of outer space and in promotion of international cooperation. They have not lost their relevance today and continue delivering remarkable results. Nevertheless, these three mechanisms are one of their kind, *sui generis* in a sense. While they all should be praised as examples of successful international legal cooperation, none of them is a model to be used in future cooperative space projects.

14.2.2 Technical International Organizations

This form of cooperation includes two mechanisms: the International Telecommunication Union (ITU) and the International Civil Aviation Organization (ICAO). Both organizations have universal membership that includes State-members of the United Nations. Both organizations have broad coordinating mandates within their areas of functioning. And both organizations focus on the technical side of cooperation, paying less attention to policy considerations. Despite the differences in the subject matters of the two organizations, generally their purposes and institutional structures are quite similar.

"In the past two centuries, IOs have become indispensable entities in international society and their law has become an important part of the international legal order. They have been created out of practical necessity: a need for permanent and structured international cooperation in an increasing number of areas that could no longer be regulated effectively by individual

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States alone."²⁶ ITU and ICAO are two exemplary instances where the organizations are performing necessary functions that can be better performed through multilateral coordination. In the terms of the theory of games, both organizations are solving a so-called distributional conflict.

In a distributional conflict, participants strictly prefer coordinating their actions to not coordinating, "but the players prefer to coordinate on different equilibriums. After a focal point (meaning a solution that seems natural or relevant for the parties) is chosen, the parties have no incentive to defect, but the process of choosing a specific outcome may be sensitive to differences in bargaining power among the parties. The allocation of radio frequencies and policies addressing satellite communication is arguably an example of such a situation."²⁷ Such situations are colloquially referred to as 'coordination problems' discussed earlier in the Chapter, meaning that no obvious conflict between players exits. A clear consequence of the nature of cooperation in these cases is that States have a very strong motivation toward cooperation because gains are most likely to outweigh any risks.

That, however, does not mean that any institutional structure would suffice to solve the coordination problem. Initially parties, as noted above, prefer coordination, but to proceed with cooperation a mutually satisfactory equilibrium has to be found. Finding the most appropriate institution for coordination is finding the equilibrium.

There are four broad reasons for the ITU and ICAO successes in technical coordination of the two spheres critically important to every State. First, they have universal membership. In matters requiring coordination this is an essential element without which coordination is often meaningless. Second, the universal support allows focusing on development of the most effective standards without the need to include concessions designed to attract broad support. The rational choice theory provides a clear explanation: "When negotiating an agreement, states interested in a relatively strong set of substantive commitments and broad membership often face a trade-off. On the one hand, they can prioritize large membership, but if transfers are difficult to arrange, this may require a watering down of the substance of the agreement. On the other hand, they may insist on stringent substantive standards in the agreement. This would establish rules that more

²⁶ N. Blokker, "General Introduction," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 12.

²⁷ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 28.

closely approximate their preferred outcome, but would also cause some affected states to opt out of the agreement."²⁸

But when a majority of States are already members of the organization, the contents of the developed documents are no longer the reason for their choice to join the organization or not. They have already agreed to the provisions of the constituent treaty and are generally in agreement with the policies promoted by the organization. By contrast, the contents of the organization's constituent treaty are the decisive factor in States' decision to join: if the provisions are strong and the support for them is low, then the provisions would be watered down for the sake of the larger membership. In ITU and ICAO a broad support is already present, so the need for trade-offs and concessions affecting the quality of the developed standards is absent.

Third, both organizations focus on technical issues, leaving policy matters outside their jurisdiction. In the ITU context it has been shown that sometimes disregarding policy considerations might lead to unforeseeable negative results.²⁹ That, however, is a trade-off for efficient technical regulation. Finally, both organizations are empowered to adopt legally binding decisions, elevating the chances of widespread compliance. Instances where international organizations are authorized to adopt legally binding rules without the consent of all affected States are few. "One can immediately see the Frankenstein problem at work in these exceptional situations. Exposing oneself to binding international rules created without one's consent, and perhaps even over one's objection, is a risk for a state. If one has these risks in mind, it may not seem surprising that states almost never grant this authority to IOs."³⁰ Usually, with an obvious exception of the United Nations Security Council, the ability to impose binding rules is restricted to documents with a limited and technocratic subject matter,³¹ which is true for both ITU and ICAO.

The legally binding nature of a document, however, does not *ipso facto* guarantee that it is going to be complied with. International practice has ample examples of good faith compliance with legally non-binding documents and egregious violations of legally binding norms. In the ITU context, compliance with the standards is a matter of simple logic due to

²⁸ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 172.

²⁹ Supra, para. 5.3.1.

³⁰ A. Guzman, *Doctor Frankenstein's International Organizations*, 24 Eur. J. Int'l L. 999 (2013), at 1022. ³¹ *Id*.

physical characteristics of the radio spectrum. In the ICAO context, compliance is similarly a matter of logic since every State wants to ensure safe and secure international air transportation of its citizens and cargo, which is impossible if traffic control rules are established on national levels without any coordination. Once scholar opined with respect to compliance with ICAO Standards and Recommended Practices:

In practice there is a powerful motivation for all States wishing to participate in international air transport to comply with the standards as closely as possible. While it may be argued that the SARPs represent only 'soft law' they cannot be disregarded with impunity. A phrase has been coined that the force of the SARPs could be compared with that of the 'law of gravity': compliance is simply unavoidable in practice and non-compliance would have serious consequences.³²

That brings the discussion back to the type of cooperation represented by these two international organizations. Coordination problems are easily solved without the need for coercion or imposition of liability for digressions because every participant is willing to cooperate.

Thereby, it is quite puzzling why States opted for legally binding cooperation in solving these coordination problems. Similar results could have been achieved through more flexible, read less costly, mechanisms not requiring lengthy negotiation of the legally binding conventions establishing ITU and ICAO.³³ One possible explanation is that in the years following the end of the Second World War "an international organization was established almost automatically as soon as an international problem and the need to cooperate were identified."³⁴ In more recent years, however, the opposite attitude has become predominant.³⁵

That leads to a discussion of whether a technical international organization is currently an appropriate form of cooperation in exploration and use of outer space. Overall, technical international organizations are capable of successfully performing a number of tasks that are currently on the space agenda; the problem of space debris and the need for space traffic management are just two examples. Matters requiring continuous coordination with a focus on technical matters are successfully addressed using this form of cooperation. The conclusion is,

³² M. Milde, International Air Law and ICAO (2008), at 164.

³³ Cf., A. Guzman, How International Law Works: A Rational Choice Theory (2008), at 127.

³⁴ H.G. Schermers and N.M. Blokker, International Institutional Law (2011), at vi.

³⁵ Id.

however, that technical international organizations are not the preferable route for dealing with pertinent issues.

First, from a purely practical perspective, creation of a new international organization with sufficient powers to effectively address technical aspects of cooperation in space is quite unlikely in the mid-term perspective for political reasons. Creation of an international organization is a lengthy process, requiring meticulous drafting of its constituent documents, which by definition have to be legally binding treaties, what seems an insurmountable obstacle in its own right. That is so, first, due to the complexity of the treaty-drafting process, and second, due to States' unwillingness to adopt any more legally binding documents regulating space activities.

Apart from this practical consideration, theoretical reflections also indicate that technical international organizations are not the most constructive solution for future space cooperative projects. ITU and ICAO are unquestionably successful in performing tasks they have been charged with. But, as it has been noted above, creation of a legally binding mechanism is not at all necessary for the types of issues they are addressing, which are mere coordination problems. In a situation where the motivation to cooperate dominates only the most cumbersome mechanism might shift the balance away from cooperation. But more importantly, in a situation where the motivation to cooperate dominates, there is no need to go an extra step in an attempt to prevent digressions.

An interconnectedness of public and private space activities that is only expected to deepen in the coming years will increase the number of technically intensive matters requiring continuous coordination. In a world that already has a multitude of international organizations, and where dissatisfaction with the results of their work and clear frustration with the costs of their maintenance are piling up, States are wary of creating new organizations. Many technical matters that already require coordination and that will surface in the coming years can be effectively addressed using a less formal approach to cooperation, which eliminates drawbacks of international organizations, but provides the necessary cooperative basis. Coordination problems need only finding an equilibrium for their successful resolution; so if the necessary level of cooperation can be achieved with less resources, it defies logic to spend as much resources as if a prisoner's dilemma has to be solved.

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Nowadays, therefore, in a sensitive area of space activities a more flexible approach might be prudent. Some suggest that it is possible to conclude that international organizations "ceased to be a model in the sense of an 'archetype', i.e. a perfect example to reproduce, but rather amounts to a 'prototype', i.e. a pattern to improve rather than to reproduce as such. To play with words, the model models itself with the development of international relations."³⁶ States are adjusting the traditional approach to international organizations depending on the functions the organization is intended to perform. It is suggested that currently it is advisable to reevaluate the approach to cooperation and to 'model' future institutional frameworks to fit the new developments and to adequately address political realities. Exclusion of the form of technical international organizations from the list of the suggested forms of future space cooperation requires proposal of an adequate substitute, which will be made in the concluding part of the Chapter.

14.2.3 Hybrids

This form of cooperation includes three analyzed mechanisms of cooperation: the Committee on Earth Observation Satellites (CEOS), the COSPAS-SARSAT Programme and the Code of Conduct for Outer Space Activities (Code). In the relevant chapters institutional features of each of the mechanisms have been analyzed in detail. A conclusion has been offered that the hybrids are most appropriate for coordination of activities in space applications and that they perform regulatory tasks less effectively. The goal of this part of the book is to identify with greater precision institutional features necessary for the hybrids in performing different types of tasks.

The perception of an international system of nation-states rested on the assumption that clear-cut distinctions were in place between the national and the international and between the public and the private. But [] these distinctions have become increasingly blurred or, alternatively, the assumption that they were ever clear-cut has been increasingly undermined. A vast field of regulatory phenomena has emerged which does not fit into well-established legal and social scientific categories which national and international law traditionally have relied on. Hybridization has become common place insofar as the combined forces of globalization and privatization and an increased reliance on self-regulation have

³⁶ M.-C. Runavot, "The Intergovernmental Organization and the Institutionalization of International Relations," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 22.

resulted in the emergence of regulatory arrangements which combine elements from several legal orders.³⁷

Nowadays, the hybridization of international law, both regulatory and institutional, is hardly challenged by anyone.

But in the 1960s institutional hybridization was considered an undesirable scenario:

It may be necessary, as we have seen, for an enterprise to engage in many activities – such as the hiring of personnel and equipment, the purchase of land for launching sites and other purposes, the issuance of securities in world money markets, the acquisition and holding of patents, and the presentation of claims for wrongful deprivations – the effective performance of which must require at least a modest degree of legal capacity. An enterprise lacking such familiar competences as those involved in claiming access to tribunals, being subjected to responsibility, making agreements, and acquiring and controlling assets would be able to act only through extraordinarily cumbersome machinery. It would possess neither the flexibility to adjust rapidly to new situations nor the capability to compete successfully with other participants in space exploitation; and it might, further, expose its individual members to wholly unanticipated and impolitic responsibilities.³⁸

It is ironic that then the hybrids were perceived as not possessing the necessary flexibility, and today flexibility is the main argument in favor of the hybrids. The lesson to be learned, apparently, is that every conclusion is a matter of the vantage point of the author. Hence, the following conclusions are also believed to be correct from the standpoint of a researcher in 2016.

The hybrid, as it is understood in this book, is an intergovernmental entity that combines features of an international organization and an international conference. It is generally believed that the hybrids are creations of the many challenges faced by the traditional system of internationalism, the deepest one being the persistent unwillingness of states to yield further power coupled with multiplying difficulties in arriving at a widely acceptable agreement due to the dramatic increase in the number of States in recent decades.³⁹ Technological advancements and intensifying utilization of multinational infrastructures in purely national activities, whereas

³⁷ P.L. Kjaer, "Introduction," in P. Jurčys, P.L. Kjaer and R. Yatsunami (eds.), *Regulatory Hybridization in the Transnational Sphere* (2013), at 3.

³⁸ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 890-91.

³⁹ See, K. Raustiala, *The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law*, 43 Va. J. Int'l L. 1 (2002), at 17.

usage of communication satellites owned and operated by transnational corporations is just one example, made international coordination as essential as ever.

The technique of 'autonomous institutional arrangements in multilateral agreements' was introduced in 1971 in the Ramsar Convention,⁴⁰ which was supported by a standing committee, a scientific review panel and a secretariat.⁴¹ Protection of the environment embodies two features that are believed to trigger hybridization of international cooperation: it is a matter of international concern that can only be addressed through concerted actions of many nations, but it is still a matter primarily requiring actions on the national level, thus prompting States to allow only limited delegation to the international institutions. Some fifteen years after the Ramsar Convention had been signed, the first hybrid, the Committee on Earth Observation Satellites, was established in the space area.

The reasons for choosing hybrid mechanisms, often referred to as soft international organizations,⁴² are manifold:

Countries choose soft IOs when they value rapid decision-making and confidentiality, when they prefer to have a broad range of issues on which the body's activity can be centered according to subjective and/or objective changing circumstances, when they want to start an activity of soft cooperation representing the first step in the creation of a formal international organization, etc. Some commentators have argued that there has been a real move away from IOs to a more informal mode of cooperation; they have also noted that international cooperation has increasingly been organized through mechanisms 'that were deliberately kept at the fringes of international law'. In them the lack of elements traditionally characterizing formal IOs (treaties or other instruments governed by international law as the individual constitution, international legal personality, autonomous will, separate permanent organs, a secretariat, etc.) emerges; vice versa, the functions assigned to them by the States can be identical or similar to those carried out by formal IOs.⁴³

⁴⁰ Art. 6, 8 of the Convention on Wetlands of International Importance, especially as Waterflow Habitat, February 2, 1971. 996 U.N.T.S. 245; T.I.A.S. 11084; 11 I.L.M. 963 (1972).

⁴¹ See, M.-C. Runavot, "The Intergovernmental Organization and the Institutionalization of International Relations," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 36.

⁴² It is suggested that a term 'soft international organization' is confusing given the long-standing tradition to equate 'international organizations' and 'intergovernmental organizations', the latter being described in fairly rigid terms; hence, it is proposed to use the broader term 'hybrid mechanism of cooperation'.

⁴³ A. Di Stasi, "About Soft International Organizations: An Open Question," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 45.

By and large, the hybrids offer significant advantages. Multilateral organizations are cumbersome and bogged down by procedural rules. In a situation where fundamental concerns over sovereignty are endemic, flexible and adaptable hybrid mechanisms foster experimentation and innovation. "They dispense with the juridical equality and the time-consuming formality of traditional international organizations."⁴⁴

Some attempt to designate the prevalence and overall success of the hybrids to the fact that they bring together specialized domestic officials in a peer-to-peer environment. The argument suggests that such an environment allows drafting the most effective measures because specialized domestic officials would draft only such measures that are capable of actually being implemented on national levels, and that thereby reduces the risk of digression from adopted 'obligations'.⁴⁵ This argument in effect suggests that usage of a hybrid form of cooperation transforms the problem being discussed into a simple coordination problem, where cooperation is preferred by default. While the involvement of specialized domestic officials and the conduct of negotiations in a somewhat less formal peer-to-peer environment positively affect the outcome of negotiations, neither can change the nature of the problem being discussed from a true conflict into a simple coordination problem. And in this sense the argument goes too far.

A mere choice of the form of cooperation, obviously, cannot transform an issue from a prisoner's dilemma conflict into a coordination problem where each player by default prefers coordination. The fact that States, and maybe international organizations, have come together to institute an informal entity to address issues requiring coordination is, by contrast, indicative of the intentions of those involved. Overall, any cooperative initiative, be it a proposal to establish an international organization or a treaty, is indicative of the emerging understanding that a matter in question needs international attention and requires cooperative efforts. Legally binding arrangements, at the same time, can serve a multitude of other purposes, predominantly in the sphere of reputation and trade-offs, primarily due to their legal force.

Non-binding informal undertakings, often integrated into or part of (but not to be equated as such to) hybrids, lack such a bargaining potential. Non-compliance with any or all

 ⁴⁴ K. Raustiala, The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law, 43 Va. J. Int'l L. 1 (2002), at 24.
 ⁴⁵ Id.

'obligations' endorsed by way of 'soft law' acts of hybrid entities⁴⁶ does not entail reputational risks similar to those resulting from digression from formal legally binding documents; neither does it serve as an indicator of possible future behavior of a non-complying State. These mechanisms are premised on the understanding that compliance with any of its documents is voluntary. Therefore, the non-compliance does not amount to an unforeseen digression. From this perspective, establishment of a hybrid mechanism is a firm indicator of a good-faith intent to commence cooperation for the benefit of all participants.

Moreover, a legally non-binding arrangement only makes sense when widespread compliance is expected. The hybrids tend to lack any enforcement mechanisms or liability regimes for violation of 'obligations', making it impossible to compel a violator to bring his behavior in compliance. The free rider problem is also diminished in the context of hybrids: since the mechanism is informal, participation is voluntary and is less of a signal of a State's reputation as a responsible member of the community. If a State chooses to join the hybrid mechanism, it does so because gains from cooperation outweigh risks entailed in cooperation, and not merely to underline its willingness to be a responsible member of the community. With such a motivation in place, free-riding is quite unlikely: if one wants to piggyback on others' effort, why not just refrain from joining and enjoy free perquisites?

Paradoxically, in a sterile environment of a theoretical analysis, informal mechanisms of cooperation, often perceived to be unstable and thus unreliable, present themselves as firm indicators of the desire to cooperate in a good faith manner, to comply with adopted decisions and to limit digressions for the sake of the coordination's success. In practice, of course, achievement of all these benefits of hybrid cooperation requires a proper choice of the used institutional structure. The appropriate institutional structure is a necessary prerequisite by itself. At the same time, an appropriate institutional structure ensures that those participants who would make functioning of the mechanism feasible and successful join the arrangement.

That leads to the discussion of the features of mechanisms belonging to the hybrid form of cooperation in outer space that should be present unless participating States decide otherwise, to be an appropriate tool in future cooperative space projects. Based on the existing practice, a set of features characteristic to the hybrids has been proposed. These are: "[A]bsence of an

⁴⁶ Here the conclusion is limited exclusively to legally non-binding documents produced within mechanisms falling in the hybrid form of cooperation and is not intended to apply to legally non-binding documents produced by international conferences or international intergovernmental organizations.

international treaty as a constituent instrument; operativity and institutional effectiveness as evidence of their existence; wide recourse to acts of 'soft law'; frequent adoption of a top-down procedure (at the highest level) in decision-making activities.⁴⁷ The preceding analysis, however, rebuts the conclusion that the absence of an international treaty as a constituent document is an immutable characteristic of mechanisms belonging to the hybrid form of cooperation: the COSPAS-SARSAT Programme has been established by way of an international legally binding treaty.⁴⁸

Acknowledging that existence of an international treaty within the otherwise informal and flexible structure of a hybrid mechanism is unusual and to a certain extent illogical – after all, the hybrid is created precisely to avoid the hassle of negotiating a treaty – it is suggested that the inherent flexibility of the hybrids rejects the very premise of a rigid set of necessary features that have to be present within every relevant mechanism. Ultimately, the hybrids are *ad hoc* creations that are capable of addressing challenges their creating States require to have addressed. If, as in 1988 when the COSPAS-SARSAT Programme was created, States see the treaty as a proper method to ensure due consideration of their individual interests and a safeguard against digressions, and if the number of participating States is small enough to allow negotiating a treaty with relatively low costs, then adoption of a constituent treaty becomes just another peculiar feature of the mechanism in question.

A wide recourse to acts of 'soft law' is also not a distinctive feature of hybrids. The majority of international organizations, as discussed above, are normally authorized to adopt exclusively legally non-binding documents as well,⁴⁹ but that does not undermine their characterization as international intergovernmental organizations. While 'soft law' documents are a hallmark of the past two decades, when they have transformed into a way of legal 'regulation' often resorted to of both technically complex and not-so-complex issues, they have always been a part of international law. For this reason, it is suggested that the acts of 'soft law' should not be considered as a distinctive characteristic of the hybrids – albeit non-binding documents are the method of coordination within such mechanisms – but as a default

⁴⁷ *Id.* at 58-59.

⁴⁸ International COSPAS-SARSAT Programme Agreement, July 1, 1988. 1518 U.N.T.S. 209.

⁴⁹ In fact, international intergovernmental organizations that do have law-making authority are very few, *see*, A. Guzman, *Doctor Frankenstein's International Organizations*, 24 Eur. J. Int'l L. 999 (2013).

characteristic, which, at the same time, might be altered by an agreement between cooperating States.

"Paradoxically, the avoidance of the intergovernmental model gave rise to new ways of institutionalizing interstate relations that exclude international personification but maintain intergovernmental working."⁵⁰ An absent international legal personality and an intergovernmental way of working are the two mandatory features of any effective hybrid mechanism.

International personification by definition moves the entity to the category of international organizations. Although "the task of the jurists is not just that of 'packing reality into the already existing juridical categories', but of adjusting 'such categories to the events of reality',"⁵¹ international legal personality is still one characteristic that unequivocally signals attribution of a mechanism to the category of international intergovernmental organizations. States, especially those formerly belonging to the Soviet bloc, have not always been favoring attribution of a status of the subject of international law to international organizations; and now, when such an attribution is no longer questioned, only an entity possessing the legal status supported by the necessary institutional characteristics can be admitted to the list of subjects of international relations cannot exist without legal personality, the legal personality cannot be attributed to any entity other than an international organization, simply because either such an attribution would not be recognized by States, or such an entity would be designated an international organization.

International legal personality involves more than the capacity to enter into international relations, as it has been discussed at length in Chapter 1. The most notable consequence of the existing international legal personality is the formation of an autonomous will of an international organization, materializing a threat of creating Dr. Frankenstein's monster. This threat is absent in the hybrids, making them an attractive way to cooperate. Hence, exclusion of international personification is an immutable characteristic of a hybrid.

⁵⁰ M.-C. Runavot, "The Intergovernmental Organization and the Institutionalization of International Relations," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 37.

⁵¹ A. Di Stasi, "About Soft International Organizations: An Open Question," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 58.

Intergovernmental working is the feature and the essence of the hybrids since they are created to facilitate such working. "Operativity and institutional effectiveness as evidence of their existence"⁵² is the third overarching characteristic that has to be present in a hybrid mechanism of cooperation. "Operativity" in this context means that the hybrids are created to work permanently in performing tasks that require continuous coordination and oversight, primarily in the areas of practical applications. "Institutional effectiveness" refers to the ability to perform tasks the mechanism is entrusted with, and hence serves as an indicator of its existence. If the mechanism performs the tasks adequately through its institutional structure, it is maintained to ensure an uninterrupted performance of the tasks or is entrusted with performance of additional tasks, thereby confirming its existence. Due to a non-existent legal personality and, in most cases, an absent international treaty, whose existence can be easily confirmed or otherwise, legally there is no evidence of the mechanism's existence except for ongoing activities.

In the context of space activities, it is suggested that four additional characteristics would enhance the quality of the hybrid mechanism and boost the chances of such a mechanism success.

The first feature is that equipment used in the projects has to be owned individually by those States, groups of States or international organizations undertaking a particular project. The hybrids are not created to manage or even supervise space projects undertaken by States and international organizations, whether individually or in partnerships, but to provide an adequate institutional framework to coordinate these projects, avoid redundancies and facilitate management of resources in an effective and economical way. The second feature, therefore, is an independent financing of projects overseen by a mechanism. Each project is financed individually by the States participating in the project, and not from the uniform budget of the entity. These two features are interconnected: preservation of individual ownership prevents the need to allocate funds for management of the projects, read involved assets, on the international level. Common funds should be limited to contribution necessary to maintain the institutional structure.

The last two features are also interconnected. On the one hand, a mechanism should have substantial legal flexibility, and on the other, focus on technical issues. The first element does not

⁵² Id.

presuppose a legally non-binding nature of the underlying document; rather, it refers to the need to limit the underlying document to those elements that are structurally essential for the very existence of a mechanism. For example, it may include provisions on the objectives of the mechanism, subject matter of its activities, initial participants and rules for admission of new participants; it may outline structure of the plenary organ, executive organ, should one be created, an organ performing secretarial functions and any other organs that are deemed necessary; it may also include voting rules and an amendment procedure. The underlying document should, however, refrain from including any technical-scientific details of the projects overseen, standards of safety and security, standards of operations and the like.

The last feature – the focus on technical issues – is only possible when the legal flexibility is present. Organizational and legal matters should be addressed in broad terms in the underlying document, leaving a mechanism with a stable foundation to perform the tasks it was created for, focusing on technical and scientific aspects. A flexible underlying document ensures that a mechanism has sufficient authority, creating an opportunity to address technical tasks, focusing on technical effectiveness and precision, without the need to formulate recommendations in a formal way. In essence, the hybrid mechanism needs a short underlying document supplemented by annexes analogous to those developed within the International Civil Aviation Organization. These might take various forms: the CEOS Working Groups that focus on particular overseen projects within the general framework of the Committee is one example; bilateral cooperative arrangements concluded within the COSPAS-SARSAT Programme are another. No matter the actual institutional structure chosen, the overarching approach that requires distinguishing regulation of legal and technical matters should be followed.

There is a certain value in adding specifics to the foregoing recommendations, for example by suggesting functions a secretarial organ should perform, the approach to allowing new participants or the preferred voting procedure. Such recommendations are excluded from the present analysis for three reasons. First, they inevitably would reflect preferences of the author, no matter how well reasoned, since almost any legal argument, more so a policy argument – which this recommendation would resemble in significant part – can go many ways. Second, any mechanism belonging to the hybrid form of cooperation is the one possessing substantial flexibility and the one reflecting preferences and needs of founding States, not following a rigid theoretical model. Finally, the hybrids might be effectively used in various areas of space

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activities; trying to predict what institutional procedures would work better for those yet unforeseen activities comes closer to astrology than to international space law.

14.2.4 Framework-contract-treaty

This form of cooperation includes two analyzed mechanisms of cooperation in space: the International Space Station 1998 Intergovernmental Agreement⁵³ and bilateral treaties. Obviously, bilateral treaties and the Intergovernmental Agreement are concluded between different numbers of States, but functionally they are close. The analyzed bilateral treaties create a legal foundation for future cooperative space projects, details of which are specified in relevant implementing arrangements. The Intergovernmental Agreement similarly creates a legal foundation for the performance of a long-term cooperative project, whereas legal and technical particularities are left to be addressed by the Memoranda of Understanding and relevant agreements between implementing agencies and related entities.

Quite obviously, the contents of the bilateral treaties and the Intergovernmental Agreement differ significantly. Nevertheless, these justifiably belong to the same form of cooperation. The form of cooperation is the general denomination for mechanisms of cooperation that pursue substantially similar cooperative goals and possess an inextricable institutional connection. In this case, both mechanisms have the goal of creating a legal foundation for cooperation that is supplemented by lower-level arrangements, and both mechanisms in achieving this goal resort to the framework structuring of the treaties.⁵⁴

The bilateral treaties may be used to achieve goals going beyond the explicit provisions of a particular treaty due to an intricate complexity of bilateral relations of States, especially in the sensitive area of space cooperation. These additional goals cannot be identified without

⁵³ Agreement among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station, Washington, done 29 January 1998, entered into force 27 March 2001; T.I.A.S. No. 12927.

⁵⁴ Similar view was expressed by S. Aoki in her recent paper analyzing reports of States submitted to the COPUOS Legal Subcommittee in the course of work on the agenda item "Review of the International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space." S. Aoki, *Identifying Common Legal Issues in International Cooperation Mechanisms*, 58th IISL Colloquium on the Law of Outer Space, Technical Session "Joint IAF/IISL Session on the Legal Framework for Cooperative Space Activities," IAC-15.E7.7.-B3.8.1. Not yet published as of November 2015 (Following the analysis of bilateral cooperative practice of the United States and Canada, the author admits that "the contents of the various Framework Conventions may differ depending on the subject-matter of the project. For instance, the ISS/IGA cannot be the same with a low budget and short period space science collaborative program.").

resorting to political speculations, what should not be done in this work. Therefore, for the purposes of drawing conclusions, the role of bilateral treaties as tools in political relations will be disregarded as not affecting the legal component of cooperation. Both multilateral and bilateral treaties are considered as capable of performing the same range of tasks, albeit among different numbers of parties.

The framework-contract-treaty form of cooperation might include mechanisms that have the following characteristics. First, they are bilateral or multilateral legally binding treaties. Second, they provide a framework for cooperation, meaning that they cover the elements thereof that are deemed essential by the parties. Third, they are expected to be used for an extended period either for multiple cooperative projects, or in the course of an evolving project. Fourth, they explicitly provide for a need to conclude additional implementing arrangements to supplement and specify provisions of the treaty.

The treaties designated to this category of cooperation have several advantages compared to the treaties that aim at specifying all rights and obligations of parties in implementation of a certain project. The first advantage is the ability to tailor cooperation to the exact needs of the project with relatively low negotiation costs: once the legal framework is in place, the designated national agencies are capable of drafting necessary additions without involving their ministries of foreign affairs and, by way of concluding agency-level implementing arrangements, avoiding the need for ratification.

Second, utilization of the framework treaties generally reduces the costs for negotiation of the treaty itself. In the course of the analysis of the selected treaties of the United States and Russia it has been shown that each country concludes, especially in the recent years, substantively identical treaties with different countries. Having a 'template' treaty in place eliminates the need to draft every new treaty from scratch. Supplementing these 'templates' by project-specific implementing arrangements, in turn, eliminates the need to sacrifice an individualized approach to cooperation for a less costly treaty negotiation process. This advantage might not be as evident as applied to multilateral treaties. But imagine all the multitude of issues that were addressed in the bilateral Memoranda of Understanding within the International Space Station framework would have been included in the Intergovernmental Agreement. The chances are that as of 2016 the Intergovernmental Agreement would not have been signed and ratified by all fifteen participating States. The third advantage of the treaties comprised by this form of cooperation stems from their characterization as 'contract' treaties, meaning that they limit their application to a certain defined set of circumstances, not establishing a legal regime applicable to a State-party at all times. In the terms of Triepel's theory distinguishing between law-making treaties and treaties as contracts,⁵⁵ this is the case where contract-treaties with their limited scope of application might for the first time be superior to law-making treaties: for in modern space law hardly any legally binding 'law-making' treaty would gain much support. The fourth advantage of having a proper legal framework for an evolving project, which might well metamorphose along the way, can be described as follows: "If contingent conditions are correctly foreseen, the chances are improved that a professional outlook will have crystallized to some degree well in advance of particular problems. Such anticipations will diminish the likelihood of shock, panic, and confusion in the presence of new developments."⁵⁶

Finally, conclusion of a framework-contract-treaty does not require immediate commencement of cooperation. But it does create a favorable atmosphere to consider possible ways and means to cooperate in future projects. From this standpoint, this form of cooperation is an appropriate approach toward involvement of less developed nations in outer space activities. The majority of bilateral treaties are concluded among developed nations; the International Space Station is a project exclusively of developed nations. It should be acknowledged that involvement of less developed nations in outer space activities would be beneficial not only for these States, but also for the whole international community. Space technologies are capable of providing the essentials that are missing today in the less developed nations, like communication and educational opportunities, which are vital for these nations' steady development and more active inclusion in all areas of international relations.

A recent scholarly work supports the proposition that the main benefits of concluding framework agreements supplemented by project-specific implementing arrangements are the ability to save resources and to agree on terms of cooperation before starting a specific cooperative project.⁵⁷ The paper further emphasizes a feature of this practice that is quite a valuable addition to States with little cooperative experience in outer space activities: the

⁵⁵ See, V.D. Degan, Sources of International Law (1997), at 489.

⁵⁶ M.S. McDougal, H.D. Lasswell, and I.A. Vlasic, *Law and Public Order in Space* (1963), at 1035.

⁵⁷ See, S. Aoki, *Identifying Common Legal Issues in International Cooperation Mechanisms*, 58th IISL Colloquium on the Law of Outer Space, Technical Session "Joint IAF/IISL Session on the Legal Framework for Cooperative Space Activities," IAC-15.E7.7.-B3.8.1, at 6. Not yet published as of November 2015.

framework agreement addresses the common legal issues that are likely to surface while negotiating a specific space mission, allowing "the emerging spacefaring nations to embark on a certain space cooperative activity without subjecting themselves to try-and-error procedure."⁵⁸

Mechanisms belonging to this form of cooperation can generally be used for a wide variety of cooperative projects. A multilateral framework-contract-treaty should be recommended for multinational long-term projects involving construction of complex space systems requiring continuous management. Construction of a space station and construction of an installation on a celestial body are now the two foreseen types of projects where such a mechanism of cooperation would prove most beneficial. The bilateral treaties would be applicable in similar projects involving only two States. The bilateral treaties, of course, are very versatile and may be used in virtually any area of bilateral space cooperation, requiring only conclusion of appropriate implementing arrangements.

Overall, this form of cooperation is likely to be an appropriate choice for many practical cooperative space projects. An approach that allows negotiating a legal framework with comparatively low costs, launching a project and adjusting legal and technical standards on every stage of the project is an attractive scenario. Moreover, such an approach does not require trade-offs between legal precision, due attention to technical matters and adaptability of the cooperative framework. In projects where expenses are extremely high, where compliance of every participant is essential for the very existence of a project – what is duly acknowledged in the 1998 Intergovernmental Agreement⁵⁹ – and where the legal guarantees provided by way of a legally binding document, no matter their moderate effectiveness, are appreciated, an international treaty is a preferred choice.

14.2.5 Regional space international organizations

As of today only one mechanism of cooperation can be designated to this form of cooperation; however, expecting that more of appropriate mechanisms will emerge sooner or later, since the effectiveness of regional organizations has been repeatedly reconfirmed during

⁵⁸ Id.

⁵⁹ E.g., Art. 23, 24, 28 of the 1998 Intergovernmental Agreement.

the COPUOS sessions,⁶⁰ a plural noun is used in the name of the form of cooperation. The European Space Agency (ESA) is the only mechanism designated to this form; in fact, the Agency might be considered as the one to pave the way toward identification of this form of cooperation in international space cooperation.

The Commonwealth of Independent States, despite the widespread perception in Russian literature, is not a regional organization, hence cannot be designated to this form of cooperation. Based on the results of the analysis in Chapter 12, it is suggested that the Commonwealth should not be designated to any form of cooperation. For one, it has not been created as a mechanism of cooperation in outer space, and it has never been used as one. More broadly, the Commonwealth is excluded from the classification because it has been created to deal with a somewhat unique situation of an amicable State dissolution but for many reasons failed to create an appropriate institutional and legal basis for achievement of its goals. Neither is it likely that conditions triggering creation of the Commonwealth would be repeated in a foreseeable future, nor is it advisable for any number of States, no matter the circumstances, to use the Commonwealth's approach to cooperation. This was a one-time solution that cannot be classified in any meaningful way; more so, such a classification would lack any sense precisely because it was a one-time solution not bearing any importance for future cooperative endeavors, except maybe for a lesson of how not to structure cooperation.

"[R]egional organizations have been established in a wide variety of geographical areas, albeit, evidently, with varying intensity, depth and political and legal characteristics. In this regard, it has been noted that, in today's world, there is no longer room for 'solitary adventures' on the part of individual States: the creation of integrated regional areas seems to be the 'postmodern passport to globalization'."⁶¹ European regional cooperation has been the archetype of regional cooperation for many decades now; and economic integration is not its only strong side.

The European Space Agency is an example of an unprecedented cooperation in many ways, the most notable being the level of cooperation the Agency has been able to achieve in certain areas. Traditionally, a regional (non-integration) organization works in an environment

⁶⁰ S. Aoki, *Identifying Common Legal Issues in International Cooperation Mechanisms*, 58th IISL Colloquium on the Law of Outer Space, Technical Session "Joint IAF/IISL Session on the Legal Framework for Cooperative Space Activities," IAC-15.E7.7.-B3.8.1. Not yet published as of November 2015.

⁶¹ P. Pennetta, "International Regional Organizations: Problems and Issues," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 80-81.

where national sovereignty has an absolute importance and achievement of an organization's aims depends strictly on the willingness of States to take on further legal obligations and, more importantly, to implement them. A quite different approach is observed in organizations of integration. "To put it briefly, we may say that this type of organizations is defined by a strong political and legal dynamism as well as by a tendency to restrict, under certain (strictly defined) conditions and with regard to specific competencies, the exercise of State sovereignty."⁶²

While labeling ESA an integration organization would be an exaggeration, it exhibits features that go beyond those expected from a traditional regional cooperation. Particularly, with respect to mandatory programs, an explicit consent of a State-party is not required to oblige it to participate. Achievement of a comparable level of cooperation might not be feasible in any other region in the near future. Such a level of cooperation is not something that can be achieved by merely mandating it in a constituent document; it is a result of certain institutional and legal arrangements coming together and incentivizing States to yield greater authority to an international organization. Learning from the ESA experience, the question is: What features should the mechanisms possess to be designated to this form of cooperation?

Undoubtedly, ESA and its success are premised in large part on the overall success of the European integration. The European Union provided ESA with an unprecedented level of economic connections. That, however, does not mean that the ESA success cannot be mirrored in a different region that lacks its own 'European Union'.⁶³ A limited regional economic cooperation is a necessary prerequisite for space cooperation: the stronger the economic ties between the States, the easier, all else constant, the establishment of space cooperation would proceed. But even a region with a moderate level of preexisting cooperative ties is capable of establishing an effective regional space organization, though the scale of cooperation and the breadth of immediate results should not be overestimated – they cannot come close to those of ESA. A mistake of the founders of the Commonwealth of Independent States should not be repeated: you cannot recreate overnight what took decades to create.

The foundation of an international organization is its membership; for a regional organization a wise approach to membership is even more important because the membership

⁶² Id. at 91-92.

⁶³ See, supra para. 11.3.2 (ESA and the European Union are two independently working international organizations that cooperate based on the 2004 Framework Agreement between ESA and the European Commission. ESA does not depend on the European Union for its functioning or existence, though their activities become more interconnected.).

tends to be more compact and the level of cooperation is expected to be deeper. "Theories of federalism teach us that jurisdiction over a problem should be allocated to the lowest level of government capable of internalizing the relevant externalities. When applied to international problems, the lesson is that international agreements should include all states (and only those states) that are significantly affected by relevant externalities."⁶⁴ Recalling the discussion on the approaches to regionalism, where it has been concluded that a region is more than a geographic proximity and that different goals require different approaches to regionalism,⁶⁵ the theories of federalism applied to international space law teach us to limit membership to those States that have a proven interest in space projects and have necessary space capabilities.

"The precondition for the creation of a regional form of association, whatever its legal nature, is the existence of a political will, which tends to be stronger where the organization has a limited number of members."⁶⁶ In other words, any successful regional space organization would have a limited initial membership and would have stringent rules for admission of new members, requiring demonstration of not only an interest in space projects, not only that a candidate-State shares 'values' of an organization, but that it is financially, economically, legally and technologically ready to commit to attainment of the goals of the organization.

The most complicated aspect in establishing a new organization, especially the one intended to promote close cooperation between a limited number of States, is to create cooperative incentives. In other words, the benefits of cooperation, namely the benefits from division of labor, specialization and economy, should outweigh risks of cooperation, especially the one posed by Dr. Frankenstein's monster. In the ESA context, cooperative benefits have been multiplied by utilization of three features: the geographic return principle, the mandatory-optional programs dichotomy and the principle of internationalization. The second feature has been hailed as the one appropriate for adaptation in environments other than ESA.⁶⁷

The mandatory-optional programs dichotomy is indeed a smart way to structure cooperation, supplying enough cooperative projects to justify existence of an organization through implementation of mandatory programs, and simultaneously creating a potential for

⁶⁴ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 170.

⁶⁵ *See*, supra para. 12.3.1.

⁶⁶ P. Pennetta, "International Regional Organizations: Problems and Issues," in R. Virzo and I. Ingravallo (eds.), *Evolutions in the Law of International Organizations* (2015), at 105-06.

⁶⁷ See, F.G. von der Dunk, "European Space Law," in F.G. von der Dunk (ed.), *Handbook of Space Law* (2014), at 311.

development by way of implementation of optional programs. The dichotomy provides a benefit of specialization by way of entrusting projects to be performed by a dedicated organization instead of a possibly less-qualified national agency.

In the context of outer space activities, which are notoriously expensive, specialization might not be enough to outweigh the risks of cooperation. Economy, primarily financial economy, is the factor that, on the one hand, persuades States that they are indeed capable of entering space activities, and on the other, that the organization is the right tool for their space programs. More so, States would sign up for mandatory programs only if they bring the benefit of specialization – that is the promise that these programs would be implemented more professionally within the organization, and the benefit of economy – that is the promise that a State would receive benefits from implementing the programs as a member of the organization comparable to that of implementing them individually, but with lower costs. The division of labor, probably, does not play a crucial role in space activities, because generally States are willing to invest their time in supervision of space projects due to a traditionally high reputational income from being a part of a 'space club'.

Therefore, a regional space organization has to provide the benefit of specialization and the financial economy. The first one is relatively easy to achieve. If a specialized organization is established, it is intended to provide specialized services for its members. Credibility is the main challenge here: the newly created organization should have significant support from its founding members to allow bringing together an adequate institutional structure supported by qualified personnel. The other challenge lies in the regulatory field: the founding States should be bold enough to entrust the organization with the authority sufficient to effectively facilitate cooperation. The authority to adopt legally binding decisions with respect to projects the organization supervises is one necessary power. A dispute resolution authority and the power to take disciplinary measures against a non-compliant State would also be advisable.

The financial economy is a trickier matter that requires a combination of precise tailoring of legal rights and obligations, technical proficiency and financial genius. Idealistically, the organization is created for a long period and is expected to perform projects ranging from research missions to practical applications projects. Therefore, it is not feasible to try and anticipate every possible financial scenario and prepare a course of action for each one. Rather, an overarching approach should be chosen. For example, ESA rules stipulate that in no case

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should contribution of any State exceed a quarter of the Agency's budget.⁶⁸ At the same time, ESA utilizes a one member-one vote principle regardless of a particular member's financial contribution.

While this system might be working well for ESA, it has been suggested that such a financing system is inherently unjust and causes tensions between States with different sizes of contributions, sometimes making wealthier States question whether they need this organization at all. An organization unquestionably needs its wealthier members, so it is the duty of the organization, or ultimately its founding States, to work out the financing system that is acceptable to all States. If a cap on a maximum allowed contribution makes the principle of one State-one vote acceptable, that is the way to go; if a weighted voting system is a more satisfactory solution, international practice has multiple examples to draw inspiration from.

Ultimately, both benefits of specialization and economy would heavily depend on the region where the organization is functioning. Is it a big region? Is it premised primarily on geographical proximity or has another factor been chosen as the preeminent one? How many founding members does the organization have and how many more members are expected to join it in the next decade? How close are the members of the organization economically and technologically? Is there an obvious leading State with excellent space capabilities? Is the organization aiming at balancing research and practical applications projects or is one element preferred over the other? Answers to these and many more questions would predetermine how the benefits of specialization and economy are better achieved in the regional organization in question. Unfortunately, no abstract theory can give a precise recipe for success.

On the abstract level it is only possible to advocate paying profound attention to maximizing the benefits of economy, making maximization of the benefits from specialization a centerpiece of the institutional structure, considering borrowing the most successful strategies, particularly the mandatory-optional programs dichotomy, from the existing regional space organizations, and tailoring even the very best borrowed strategies to the unique conditions of the region. None of these suggestions would work, however, if the foundation, namely the membership, of the organization were mixed from inappropriate elements, if it were too loose or too rigid, or if it were downright inappropriate for the type of construction it is expected to bear.

⁶⁸ Article XIII(1)(a) of the Convention for the Establishment of a European Space Agency, Paris, done 30 May 1975, entered into force 30 October 1980; 14 I.L.M. 864 (1975).

14.3 Future Prospects

Transgovernmental networks will increasingly provide an important anchor for international organizations and nonstate actors alike. U.N. officials have already learned a lesson about the limits of supranational authority; mandated cuts in the international bureaucracy will further tip the balance of power toward national regulators. The next generation of international institutions is also likely to look more like the Basel Committee, or, more formally, the Organization of Economic Cooperation and Development, dedicated to providing a forum for transnational problem-solving and the harmonization of national law. The disaggregation of the state creates opportunities for domestic institutions, particularly courts, to make common cause with their supranational counterparts against their fellow branches of government. Nonstate actors will lobby and litigate wherever they think they will have the most effect. Many already realize that corporate self-regulation and states' promises to comply with vague international agreements are no substitute for national law.⁶⁹

That is one grim prospect for international lawyers. Although the cited opinion correctly notes the overall trend toward greater reliance for regulation, in its strict legal sense, on national law and usage of international law primarily for coordination, it might go a bit too far in forecasting the role of the private sector and private regulation. The ability of non-state actors to lobby and litigate, to influence legal processes in a meaningful way is limited to those several countries with developed political and legal systems; a majority of nations until today do not have a powerful private sector or the necessary legal tools for it to use to assert the power. But the trend is clear: commercialization and globalization are making the private sector a more influential international player, and a traditional international law with its State-centricity and widespread vague formulations becomes less relevant in certain areas, demanding new ways to address contemporary issues. These trends are clear in the space sector.

14.3.1 Looking into the Future: Recommended Forms of Cooperation

In the course of the preceding twelve chapters, a representative set of modern mechanisms of international legal cooperation in outer space has been reviewed, paying profound attention to the legal and institutional features that affect their operational

⁶⁹ A.-M. Slaughter, *The Real New World Order*, 76 Foreign Affairs 183 (1997), at 195.

effectiveness. The analysis has shown that some mechanisms are comparatively less effective, while others are undeniable examples of successful cooperation. Keeping in mind the overarching goal of the book, the most important result is the proposal of a list of forms of cooperation that are expected to be the most effective for the respective types of future cooperative space projects.

Table 2 provides a short summary of the findings of the previous parts of the chapter. Although, as before, the form of the table forces omission of important details, this format provides a convenient at-a-glance overview of the results of the research. It makes clear that the three forms of cooperation possessing enumerated features are the recommended tools in achievement of three different types of goals. The form of hybrids is by far the most controversial, or at least non-conventional one.

"Space activities have caught the imagination of international lawyers, as they have caught that of the public generally, by their dramatic quality. Man's love of adventure has never been intoxicated by quite so strong a wine as the sense man is no longer earthbound."⁷⁰ It seems that today the thrill of that strong wine is wearing out and States are facing a difficult task of balancing the need to continue cooperation with the cautious approach to any additional legal obligations. Hybridization has been the answer to this conundrum.

Hybridization is often equated to the phenomenon of 'soft law'. The distinction between these concepts should be made clear. Hybridization is a phenomenon that can be found in both regulatory and institutional spheres; it refers to inclusion of informal elements into the traditionally formal concepts. The hybrid, as it is understood in this book, is an intergovernmental entity that combines features of an international organization and an international conference. The term 'soft law' is used throughout this book to refer to international acts adopted by international organizations or concluded between States, or between States and international intergovernmental organizations that do not create legal rights and obligations enforceable on the international plane, but might have political and moral value. 'Soft law' and the hybrids, therefore, are the products of hybridization, whereas the first one is the result of a regulatory hybridization and the latter is the product of an institutional hybridization.

⁷⁰ C.W. Jenks, *Space Law* (1965), at 315.

Both the regulatory and institutional hybridization have become a part of international space cooperation, particularly in the recent years, following the swift development of technology. Particularly, commercialization of space activities is one of the factors necessitating new approaches, where an international organization's 'prototype' has to be tailored to meet the challenges.

International law and the private sector in the context of outer space activities relate to each other in many ways, including the direct influence of the legal regime on the economic feasibility of activities.⁷¹ This new 'balance of powers' demands that commercial consequences are taken into consideration in elaboration of the legal regime, leading to institutional and regulatory hybridization. From the regulatory perspective, it encourages a less formal approach to the adopted documents. Transformation of outer space activities into a commercially feasible, in some instances also highly profitable business dictates the need not only for regulatory stability, but also for proactive resolution of technical and legal matters posed by involvement of new actors and by the advancements of science and technology, triggering the institutional hybridization. A hybrid mechanism of cooperation due to its inherent flexibility is well equipped to structure its working methods in a most appropriate way.

Additionally, "many contemporary issues are increasingly technocratic, in the sense that they entail the development and application of expert knowledge. Faith in the agency expertise has justified deference to agencies and a concomitant expansion of their powers, both at a national level, but also transnationally. Moreover, political deference to agency actions at the transnational level appears justified by a sense that they relate to issues that are narrowly technical rather than broadly political. As such, they are questions that are best managed by technocrats, rather than political elites or bureaucrats specializing in international relations."⁷² This is another reason behind intensifying hybridization in both regulatory and institutional spheres.

The hybrids are the form of cooperation that is characterized by availability of necessary skills, continuous character of work and structural flexibility, but is not complicated by lengthy law-making procedures. They are well equipped to solve coordination problems. It is suggested

⁷¹ J. Klabbers, "Of Round Pegs and Square Holes: International Law and the Private Sector," in P. Jurčys, P.L. Kjaer and R. Yatsunami (eds.), *Regulatory Hybridization in the Transnational Sphere* (2013), at 32-34.

⁷² M. Fenwick, "Transnational Regulatory Networks," in P. Jurčys, P.L. Kjaer and R. Yatsunami (eds.), *Regulatory Hybridization in the Transnational Sphere* (2013), at 175.

that the hybrids are well fit to conduct oversight and coordination of activities in the area of space applications on a continuous basis, focusing on technical matters. Establishment of the space traffic management system and the system for space debris mitigation are the two examples of such problems that can be effectively addressed using the hybrids. In both cases cooperation is presumably the preferred solution, while finding the cooperative equilibrium, read the solution that seems relevant for all parties, is the most challenging task. Once the equilibrium is found, the ensuing cooperation requires only minimal formalization and continuous technically oriented oversight; and that is what the hybrids are competent to do.

While the hybrids are playing an increasingly important role in international cooperation, the limits of their application should be understood. The hybrids are most appropriate in the area of space applications. Regulation does not need hybridity to achieve its goals; 'hard law' and 'soft law' are sufficient tools in establishing rights and obligations of the parties.

Both trends – commercialization and an increasingly technocratic nature of contemporary issues – play their role in shaping modern international space cooperation. The hybrids are indeed one of the forms of cooperation that has a great potential in addressing space-related matters, but the key phrase here is 'one of', meaning that the hybrids are not the only possible solution. The foregoing analysis underlined the fact that different goals require different approaches. So no matter the growing importance of the hybrids, they are not capable of effectively dealing with every topic on today's space agenda.

The other two recommended forms of cooperation are suitable for completely different tasks than the hybrids. The framework-contract-treaties, whether multilateral or bilateral, are an excellent institutional basis for long-term complex projects. This form of cooperation manages to combine the benefits of flexibility – by way of providing only a necessary minimum of formal regulation and leaving particularities to be decided 'on the go' – with the undeniable advantages of a traditional formal international treaty negotiated on the highest level and regulated by the decades-old international law of treaties. The form of regional space organizations, despite being a group of one in the present analysis, has a great potential as the space technology continues to develop and more nations engage in space activities, spreading the opportunities for regional cooperation beyond the European region. Together these three forms of cooperation constitute a firm institutional basis for future space projects; more so, they are capable to face challenges, both regulatory and institutional, that future endeavors might bring.

Table 2, however, does not contain any recommendations as to a preferred form of cooperation appropriate for cooperation in negotiation and development of a 'law-making treaty', which is understood as a treaty establishing a legal regime in certain areas and is broader compared to the 'framework-contract-treaty' concluded between a limited number of parties. In other words, the table does not suggest the appropriate form of cooperation in case an international document, whether legally binding or not, similar in regulatory nature to the Outer Space Treaty, or more realistically to an elaborating convention, is ever to be negotiated and adopted.

This omission is intentional. First of all, taking into consideration the noted trends of commercialization and an increasingly technocratic nature of contemporary issues, it is hardly plausible to advocate that an agreement coming close to a 'law-making treaty' would become necessary in the space area any time soon. The second consequence of the noted trends is that any agreement aiming to regulate outer space activities on a more or less universal level is going to focus on rather peculiar issues, in contrast to the Outer Space Treaty and the three elaborating conventions that established the general legal regime of outer space. In this sense, it is more realistic that the next universal or near-universal space agreement would have a subject matter resembling that of the United Nations legal principles, focusing on a certain area of space activities or practical applications. It would be a pure speculation to try to predict what that area might be. A subject matter of an agreement, just as a subject matter of practical cooperation, predetermines the most appropriate format of cooperation; hence, no suggestions should be made with respect to the most appropriate format of cooperation without knowing the subject matter of a future possible international space agreement.

Third, negotiation of a 'law-making' agreement is a familiar undertaking that has been a part of international relations for centuries. No matter the novelties in the subject matter of the agreement, any agreement is an "act of coming into accord"⁷³ that has been mastered by States.

When states come together to make an agreement, they have nearly total control over the content and form of the deal. The result is that agreements range over almost every imaginable topic and virtually every conceivable form of strategic interaction and they vary widely in their design. Some are bilateral while others are multilateral; some take the form of treaties that are said to be "binding" under international law while others are much less formal; some provide for

⁷³ H. Kelsen, *Principles of International Law* (1952), at 317.

mandatory dispute resolution while others do not even mention the subject; some include comprehensive monitoring schemes while others provide no oversight whatsoever; some demand extensive changes to existing practices while other do little more than reflect what states are already doing; some are highly abstract and focused on general principles while others establish detailed commitments.⁷⁴

Recommendations as to appropriate procedures, number of negotiating parties and a preferred forum for negotiations might be made only when a specific agreement, or at least a subject matter is known. In the abstract, drafting and negotiating an international agreement might be arranged in a multitude of ways, and there are not really one or two preferred formats since the ultimate measure of success is the conclusion of a widely adhered-to agreement.

Finally, in the context of outer space agreements establishing a general regime of outer space activities, COPUOS has been the forum for their negotiation. Despite the current stalemate in the Committee's activities, introduction of changes to the COPUOS methods of work as described in Chapter 3, might well reinstate its primary role in the outer space lawmaking process. But again, that would be an utterly familiar undertaking that does not require theoretical elaboration and rather depends on the political will of participating States.

14.3.2 Looking into the Future: Learning from the Present

The words of Manfred Lachs do not lose their relevance: "In this and in a wider [context] ... it ought to be made clear that principles as enumerated do not constitute a closed chapter. We have to welcome what has been achieved and strive for further agreements. The law of outer space is in its formative stage only. We must proceed with prudence and care – take full benefit of agreements reached ... make them a living reality and continue with our efforts for further agreements. ... The draft once adopted by the General Assembly could and should become a document of basic importance for our future efforts to facilitate international co-operation, to regulate and offer protection of law to the great achievement of man's genius in outer space for the benefit of our generation and those who will succeed us."⁷⁵ Space activities are evolving, and so should methods of cooperation. That, however, does not mean that new approaches to cooperation should supersede the ones already in place; rather, they should complement them. The general principles of space law cannot be substituted by any hybridized regulation, but they

⁷⁴ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008), at 119.

⁷⁵ M. Lachs, *The Law of Outer Space: An Experience in Contemporary Law-Making* (2010), at 128.

surely can be enhanced, be made up-to-date. The general principles and traditional methods of cooperation should be treated as a "living reality" that adapts but that does not lose its relevance with emergence of new challenges.

Being supportive of the theory of regulatory hybridization and acknowledging the benefits it brings, it is suggested that traditional mechanisms of cooperation have not lost their importance. Today's challenge lies not in a lack of political will to cooperate, but in finding the most appropriate approach to cooperation. In a globalized world only a handful of issues can be labeled as being exclusively within a national purview; hence, the need for cooperation is there. It is suggested that nowadays three forms of cooperation reviewed above are capable of fostering international space cooperation and addressing issues on today's space agenda.

At the same time, the mechanisms already in place should not be disregarded as being obsolete. The mechanisms designated to the United Nations system form of cooperation and to the technical international organizations form of cooperation continue to be important tools in modern space cooperation. Non-inclusion of these two forms in the list of forms of cooperation deemed the most appropriate for future space projects suggests only that they are not the best options for possible future projects, but is not intended to undermine their role in the ongoing cooperation. The mechanisms designated to the United Nations system form of cooperation are unique in many ways; and one consequence of their uniqueness is that they cannot be effectively replicated to perform any functions other than those they are already performing; hence they should not be considered as institutional models for future cooperation that would inevitably include tasks going beyond these mechanisms' mandates.

The two analyzed technical international organizations are undoubtedly prominent examples of successful cooperation. More so, they might serve as models for future space cooperation. They are excluded from the list of the recommended forms of cooperation due to the currently widespread preference for more flexible cooperation based on 'soft law' documents. Technical issues akin to those addressed by ITU and ICAO are the easily solved coordination games that do not require a legally binding agreement to force broad States' compliance. The proposal to exclude the form of technical international organizations from the list of the recommended forms of cooperation, thereby, is dictated by the desire to propose such approaches to cooperation that are most likely to gain broad support and be implemented in practice. If an issue can be adequately resolved using less formal and hence less contentious method, this is the recommended way.

As has been explained above, the three suggested forms of cooperation do not exhaust options for space cooperation. The two other forms of cooperation preserve their current roles, and, moreover, it is expected that the mechanisms designated to these two forms would not cease to adjust their practices to the ongoing developments in space activities. While they are not suggested as the promising candidates to address new, yet unanticipated future space projects, they are well fit to continue tackling the issues they are effectively addressing today. And a possible need for an international 'law-making' agreement is one of the tasks that can be undertaken using one of these 'traditional' mechanisms of cooperation.

A prominent scholar opined in 1965: "To attempt to predict the course or rate of further development would be hazardous in the extreme, but we can at least attempt to distinguish some of the broad considerations of policy which will call for continuing attention. It will remain essential to hold a balance between too fast and too slow. This has been from the outset the central dilemma of space law – to establish firmly a common interest of mankind in space and the rule of law in space before de facto situations have crystallized too far to permit of any bold international initiative, while avoiding crystallizing the law prematurely before enough is known of the facts which it will apply. … A similar balance must be held between what is appropriate for regulation by law and what is best left to understandings among scientists."⁷⁶ These suggestions continue to be a valuable guidance in the twenty-first century.

The hybrids have been characterized as a "blueprint for the international architecture of the twenty first century."⁷⁷ That might well prove to be true. Paying greater attention to the less formal approaches to cooperation, the traditional methods of cooperation should not be forgotten. After all, the role of lawyers is to ensure that the best legal solutions are readily available when the need for cooperation is there.

⁷⁶ C.W. Jenks, *Space Law* (1965), at 314.

⁷⁷ A.-M. Slaughter, *The Real New World Order*, 76 Foreign Affairs 183 (1997), at 197.

Conclusion

"It has become a platitude to say that international law is changing', said Maurice Bourquin at The Hague Academy of International Law in 1931. Some seventy-five years later, it is still commonplace to address international law in terms of its evolution."¹ Evolution of international law is multi-dimensional, taking place in the regulatory and institutional realms, at the same time entailing a multitude of non-legal changes in the way international relations operate. International space law, being a part of international legal order, is also believed to be in the process of development and continuous change. Here, too, both the regulatory and institutional evolution is taking place. It is, however, argued that the regulatory evolution is somewhat less dramatic both in terms of the depth of the ongoing changes and in terms of its influence on future development of international space activities.

Throughout the book it has been shown that the general principles of international space law that have been established almost fifty years ago have seen only a moderate change, mostly amounting to enhancement, refinement and specialization of the pronounced principles. The regulatory framework of international space law similarly has not seen a dramatic change in the type of documents used: unlike in many other areas of law, for example, 'soft law' documents have long been a part of the space law normative basis. The institutional evolution, however, has always been a part of outer space activities: technological advancements have been closely followed by the corresponding institutional changes. Nowadays, new technological advancements again prompt new institutional approaches to take the center stage.

Currently the institutional dimension of outer space activities is relatively more important than the regulatory framework. That is so for two reasons. First, it is firmly believed that the United Nations space treaties have created the necessary legal foundation and that new questions often might be effectively addressed by means other than international legally binding documents.² In other words, the United Nations treaties are sufficient to a great extent, diminishing the need for additional international regulatory instruments. Second, the principle of

¹ A.-Ch. Martineau, *The Rhetoric of Fragmentation: Fear and Faith in International Law*, 22 Leiden J. of Intl L. 1 (2009), at 1.

² Cf., F. von der Dunk, "The Undeniably Necessary Cradle – Out of Principle and Ultimately Out of Sense," in G. Lafferranderie and D. Crowther (eds.), Outlook on Space Law over the Next 30 Years (1997), at 401-14.

cooperation is one of the primary principles in international space activities. Although the principle is not understood as an unqualified obligation to cooperate, it has been in the background of all developments in outer space activities. In the context of international space law, cooperation is exceedingly important, at least because international cooperation increases cooperating State's legitimacy,³ thereby elevating the legitimacy of the whole international space regime. While the United Nations treaties provide a sufficient regulatory basis for cooperation, States are facing the need to create an institutional framework for cooperation. Thereby, the institutional side of cooperation becomes elevated both as a tool used to comply with the principle of cooperation and as a method to develop the regulatory basis by way of applying general principles and norms to unique circumstances of cooperation.

International cooperation has been a part of space activities since the first years of the space era, but only in the recent decades has cooperation transformed into an immutable characteristic of space activities. Globalization and commercialization are sure to instigate further intensification of cooperation, making joint activities more beneficial for both States and non-State actors. Furthermore, it has been suggested "that international cooperation would continue to be a necessary basis for dealing with new challenges, such as ensuring the long-term sustainability of space activities and promoting peace and security so as to enable the sustainable development of all countries."⁴ Hence, cooperation is not only a way of making space activities more rewarding, but also the way to address global issues.

Choosing the right institutional mechanism for cooperation, therefore, becomes a matter of greater importance. As has been noted above, often a choice of a proper mechanism of cooperation draws a line between successful cooperation and no cooperation at all. Premised on the understanding that different categories of cooperation require different principles, procedures and provisions,⁵ this book has the goal of identifying the most appropriate forms of cooperation for various future space projects. Similar work is being done within the COPUOS framework.

³ See, P.J. Blount, Space Traffic Management and the United States Data Sharing Environment, 58th IISL Colloquium on the Law of Outer Space, Technical Session "Legal Issues of Space Traffic Management," IAC-15.E7.4.4. Not yet published as of November 2015.

⁴ Report of the Legal Subcommittee on its fifty-fourth session, held in Vienna from 13 to 24 April 2015, A/AC.105/1090, para. 215.

⁵ See, S. Aoki, *Identifying Common Legal Issues in International Cooperation Mechanisms*, 58th IISL Colloquium on the Law of Outer Space, Technical Session "Joint IAF/IISL Session on the Legal Framework for Cooperative Space Activities," IAC-15.E7.7.-B3.8.1, at 7. Not yet published as of November 2015.

It should be recalled that the COPUOS Legal Subcommittee in working on the agenda item titled "Review of the International Mechanisms of Cooperation in the Peaceful Exploration and Use of Outer Space".⁶ While the goals of this book and of the study undertaken by the COPUOS Legal Subcommittee are analogous, they are not identical.

The COPUOS study aims at providing an overview of currently existing mechanisms of cooperation, identifying the necessary elements of a mechanism of cooperation depending on the goals it aims to achieve. A view has been expressed that such an overview "would be especially useful for emerging spacefaring nations for they are relatively inexperienced for making an international project agreement mutually acceptable and equally beneficial. A future guidance will also be effective for non-governmental space entities which plan to embark on a new project with sovereign States."⁷

The present book would hopefully prove beneficial for various readers, representing experienced spacefaring States, emerging spacefaring nations, nations exploring opportunities for prospective involvement in space activities, non-State actors, academia and anyone else interested in the subject. This book, however, aims at drawing conclusions a level too abstract to serve as a proper guidance for those subjects seeking a counsel on the matters of proper structuring of international agreements underlying cooperative projects. This research aims primarily at proposing a list of forms of cooperation – that might be implemented through quite different mechanisms of cooperation – and suggesting the respective fields of cooperative activities these forms would be best suited for based on a representative, but not by all means comprehensive, review of practice of cooperation and on somewhat simplified ramifications of application of the rational choice theory to the context of international space cooperation.

Responses of States submitted in the course of work on the agenda item "Review of the International Mechanisms of Cooperation in the Peaceful Exploration and Use of Outer Space" outline respective States' purposes for cooperation. Cooperation is seen as, among others, the means to overcome global problems, the best way to ensure that activities in outer space are carried on in the interest of maintaining international peace and security and the way to develop

⁶ Report of the Legal Subcommittee on its fifty-fourth session, held in Vienna from 8 to 19 April 2013, A/AC.105/1045, para. 168.

⁷ S. Aoki, *Identifying Common Legal Issues in International Cooperation Mechanisms*, 58th IISL Colloquium on the Law of Outer Space, Technical Session "Joint IAF/IISL Session on the Legal Framework for Cooperative Space Activities," IAC-15.E7.7.-B3.8.1. Not yet published as of November 2015.

national space sector.⁸ Cooperation, therefore, is perceived as an instrument for the attainment of very different goals, ranging from compliance with State's international obligations to achievement of financial benefits for national economies.

The increasing variety of goals States strive to achieve through cooperation demand that cooperation be structured in the most appropriate way. At the same time, the increasing variety of goals of cooperation makes proposing the most appropriate ways of cooperation a more delicate matter. As the number of subjects involved in cooperation, the types of cooperating subjects, the goals of cooperation, the types of cooperative projects and the intensity of cooperation grow, the more disparate and variable the chosen mechanisms of cooperation become. Praising the important role of international cooperation in contemporary outer space activities, the recommendations about the proper approaches to cooperation should preserve a certain level of abstractedness. States are more competent to decide on the details of the chosen mechanism of cooperation depending on particular circumstances of cooperation; researchers are properly placed only to provide theoretical, and to a certain extent metaphysical guidance.

During the 2015 session of the COPUOS Legal Subcommittee the "view was expressed that the mechanisms for international space cooperation and the enhancement of the rule of law in outer space had been shown, in practice, to be complementary in nature: international cooperation served as an important means for advancing the rule of law in outer space, while the rule of law provided an effective institutional guarantee of international cooperation."⁹ It was further emphasized that finding workable mechanisms of cooperation was an essential element in ensuring that the principle of international cooperation was effectively implemented. Hopefully, this book contributed to the process of finding the most appropriate ways to cooperation.

⁸ Id.

⁹ Report of the Legal Subcommittee on its fifty-fourth session, held in Vienna from 13 to 24 April 2015, A/AC.105/1090, para. 214.

Table 1

	Category of Mechanism	Features	Goals	Effectiveness
OST and 3 Conventions	Treaty	Adopted in the beginning of the space era, have broad support. Not likely to be repeated again.	Adoption of general space law principles; their elaboration in 3 conventions	Yes, in establishing overarching regime of outer space; particularities are dealt with separately on int'l and national level
COPUOS	Organization	Need to introduce changes with respect to broad membership, State- centricity, work through 2 Subcommittees	Nowadays, the role is primarily to propose visions on law	Overall, a very successful organ. With necessary transformation, might be effective in dealing with space debris and providing overview of UN space treaties practice of implementation, identifying CIL.
UNISPACE	Conference	Using IO's secretariat is beneficial for organization	Review changes in outer space activities	Yes, because incentivized cooperation and promoted cooperation in several areas of practical applications.
ITU	Organization	The system is not tailored to deal with increasing pressure on system of frequencies and orbital slots allocation, and addressing policy implications in the course of technical-oriented cooperation	Allocation and allotment of radio frequencies and orbital slots, i.e. coordination of usage of limited resources with focus on technical aspects	Yes, with respect to all modes of communication. Effectiveness presupposed by physical characteristics; hypothetically, a hybrid mechanism could also succeed.
ICAO	Organization	Regulates exclusively civil aviation, where States exercise sovereign rights over airspace.	Coordination of international civil aviation to ensure safety, equality of opportunity	Yes in civil aviation; not likely to be in space traffic management. Better choice for space traffic would be a hybrid mechanism.

		Recommended practices and standards formulated as Appendixes to the Convention.	and sound and economical operation	
ISS	Treaty	'Framework-contract- treaty' (IGA) that creates a legal basis for a multi-level legal and technical cooperation	Establishment of a legal basis for operation of a long-term multi-nation cooperative project	Yes, by way of allowing separating legal issues from technical, administrative, logistical and other.
CEOS	Hybrid	Secretarial organ is close to that of an IO; extensive structure to support coordination	Coordination of Earth observation missions of participating Agencies	Yes, in avoiding redundancies in observation programs.
Code of Conduct	Hybrid	Perfunctory outline of mechanism of cooperation; secretarial organ is not autonomous so doesn't resemble that of an IO	'Regulation' through advancement of best practices regarding space debris minimization and peaceful uses of outer space	Yet to be seen, but likely won't be effective. 'Regulation' is too grand of a goal for a hybrid mechanism.
COSPAS-SARSAT	Hybrid	Preservation of national ownership over space equipment, operation of equipment by States, and the focus on technical coordination – similar to CEOS	Creation of an int'l system of space-based search and rescue	Yes, in uniting efforts of 41 States in non-commercial use of practical space applications
ESA	Organization	Regional space organization premised on deep integration, using the principle of 'fair return', mandatory-optional programs and	Promotion of cooperation among the European States in space research and technology and their space applications	Yes, though unites not all European States. Selective 'sectoral' approach to regionalism is necessary in technologically advanced cooperation.

		internationalization		
CIS	Organization	Not a regional organization, but an organization with limited membership, allowing only former Soviet republics. Space cooperation through committee that includes all members of organization	Promotion of economic, military and all other types of cooperation. In space – coordination of usage of formerly united space complex	No, neither in cooperation in general, nor in space. Space cooperation on bilateral level, no programs on CIS level.
Bilateral Treaties	Treaty	Usage of framework treaties that are elaborated by project-specific implementing arrangements	Creation of legal basis for further cooperation in separate projects	Yes, in creating legal basis for intensifying space cooperation, allowing to commence specific project by way of agency-level arrangement

Table 2

Form of Cooperation	Examples	Necessary features	Areas of Work
Hybrids	 Committee on Earth Observation Satellites COSPAS-SARSAT Programme Code of Conduct for Outer Space Activities 	 Absent international legal personality Intergovernmental working Operativity and institutional effectiveness as evidence of existence Independent financing of overseen projects Individual ownership of used equipment Legal flexibility Focus on technical issues 	Oversight and coordination of activities in the area of space application on a continuous basis, focusing on technical matters
Framework-contract-treaties	 ISS Intergovernmental Agreement Bilateral treaties 	 Bilateral or multilateral legally binding treaties Provide a framework for cooperation, covering the elements that are deemed essential by the parties Are expected to be used for an extended period either for multiple projects, or for an evolving project Provide for a need to conclude additional implementing arrangements 	Bilateral or multilateral long- term projects involving construction of complex space systems requiring continuous management
Regional Space Organizations	European Space Agency	• Membership limited to States with a proven interest in space projects	Both research and space application projects, depending on the mandate of the

and space capacities	organization
• Maximization of the	
benefits of economy	
• Institutional structure with	
an emphasis on	
maximizing the benefits	
from specialization	