

10th United Nations Workshop on Space Law
“Contribution of Space Law and Policy to Space Governance and Space
Security in the 21st Century”.

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Opening Panel: Welcome Addresses and Key Note Speeches

Space Law and Governance

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I am deeply honoured to have the opportunity to address this audience at the opening of the 10th United Nations Workshop on Space Law, which intends to set the stage covering the two main pillars of the Workshop: Space law and governance on the one hand, and space security on the other. My topic will be space law and governance.

The perspectives of space law and space governance connect directly to the preparations of UNISPACE+50. The COPUOS, at its 59th session, agreed to a thematic priority on the legal regime of outer space and global space governance. Thematic priority 2 is very broad and encompasses many aspects. Among them, I would mention the current and future trends and challenges to the progressive development of space law; the assessment of the state of affairs of the United Nations treaties on outer space and of other relevant international instruments, such as principles, resolutions and guidelines governing space activities, and the identification of areas that may require additional regulation.

Setting the scene. The legal framework.

Addressing space law and space governance means referring simultaneously to two different but interconnected concepts. "Space law and space governance" are indeed the two sides of the same coin. Firstly, there is a normative or substantial level of governance, through space law as a corpus of rules and key legal principles that address behaviours in

outer space; secondly, we have a structural level of governance, an institutional framework capable of applying, revising if necessary, adapting the rules, and monitor their compliance. The expression “international space governance” (ISG) means in fact the whole of organizations, institutions, political instruments, mechanisms, legal rules and procedures that govern space activities at the international level (for a similar debate in the environmental field, see RIO+20).

In its turn, space law is a concise notion that refers to all the rules aiming at regulating the activities of States and other subjects, including private operators, in outer space. These rules belong to different legal systems, international law as well as national legal orders, on the one hand, and to different branches of law, public or private, on the other hand.

In the past, the legal discipline of space activities was characterized mainly by its nature of public law, both international and national. State’s interests were, and still are, influential factors that determine the public law nature of space law, and the peremptory nature of the relevant applicable rules. Even the governmental intervention to organize a market of space products or services, including empowering private operators, is a matter regulated, within the internal legal systems, under the aegis of public law.

It is also true that, with the commercialization of space activities, space law has had the tendency to appeal more and more to private and commercial law. This has affected particularly the law of space contracts, the law of contractual liability, the right to intellectual property, insurance law and the modes of financing space activities and securing loans for space projects. However, the origin, and the basis, of current space law are rooted in international law, to which I will refer.

International rules governing space activities

There are three main reasons, in my mind, that justify a legal assessment of the status of art with regard to space law and governance.

Firstly, because outer space activities are essential to the life of humankind on Earth. Space applications provide a practical contribution to the daily lives of millions of people, and could be used even more in the interest of humanity and in particular of the less favoured countries. Two billion people worldwide do not have access to telephone coverage.

Space law is of paramount importance to provide the necessary basis for States, particularly developing countries, to meet development goals and address the challenges to sustainable development.

Still, space applications help us in a better understanding of the environmental challenges, particularly those related to climate change and management of natural resources, and the consequences of disasters. During the recent earthquake, which struck central Italy, satellite images have been used to help emergency aid organisations, while scientists have begun to map surface deformations caused by the earthquake, studying data from the Sentinel-1 satellite mission and other space borne radar missions.

The second reason is that space activities have an increasing economic relevance. I make reference not only to the traditional sectors, such as satellite communications, Earth observation, meteorology and satellite navigation, but also to the emergence of new activities, such as suborbital flights, constellations of small satellites and the exploitation of natural resources of celestial bodies. The needs are still immense, promising several years of strong economic growth.

No doubt that the certainty and predictability of space law and an efficient system of governance will facilitate these developments. When law and legal norms are obscure or unreliable, the legal system might inhibit commercial transactions.

The third reason has to do with the primary goal of space law, which is to ensure a rational and responsible approach to the exploration and use of outer space for the benefit and in the interest of humankind. The function of space law is to maintain order and co-ordinate behaviour and relations among the subjects, public and private, involved in space activities. Every

entity carrying out activities in outer space must generally behave in a fashion that does not breach legal rules or hamper the rights of other subjects.

In this context, we should recognize the invaluable role played by the existing international treaties on outer space, adopted by the UN General Assembly, especially the 1967 Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. They consolidated a legal regime aimed at fostering use of outer space and strengthening international cooperation in outer space activities.

This legally binding framework has not really evolved since then in its fundamental principles. The basic regulation of public law on space activities continues to be rooted in the UN space treaties adopted between 1967 and 1979 by the UN General Assembly and its COPUOS. To these treaties aimed at the governance of outer space activities, we should add several non-binding normative instruments, namely the declarations of principles, the resolutions and the guidelines.

As it is well known, the OST and the other treaties affect not only public, but also private activities in outer space. The main States' obligations in this field are the international responsibility for national activities in outer space, the obligation to authorize, and continuously supervise private activities; the obligation to repair damages caused by space objects and the obligation to register objects launched into outer space or beyond.

In particular, Art. VI of the Treaty gives the clear perception that public law maintains a prominent position. In fact, this provision departs from the ordinary regime of responsibility in international law, where States do not respond for the conducts of private persons.

Yet, another feature of the UN space treaties is the importance they give to the principle of international cooperation. The OST sets the basis for the international cooperation in outer space activities for the benefit of humanity and contains several references to the need of sharing the results of scientific research in outer space. The Declaration of Principles

on international cooperation adopted by the General Assembly in 1996, reinforces this framework by stating that international cooperation should be carried out with particular attention to developing countries' needs, and the need to "facilitate the exchange of expertise and technology between States on a mutually acceptable basis."

The principle of international cooperation is a general principle, which has to be specified in the legal instruments of treaty law. The COPUOS is contributing to enlighten the legal aspects of those cooperation activities through the Working Group on international cooperation mechanisms established in 2014. It is taking stock of the range of mechanisms employed by Member States in order to develop a better understanding of the international cooperation tools.

Thus, we can affirm that under the legal framework of the UN treaties, the use of outer space by States, international organizations and private entities has flourished over time.

Role and importance of space law in the governance of outer space activities.

Since then, space activities have evolved. Firstly, the liberalization of telecommunications promoted a global market for communication services by satellite fully competitive, to the benefit of consumers and service providers. At the same time, existing intergovernmental satellite organizations were fully privatized. Later on, we have witnessed the emergence of new applications with high socio-economic impact in the areas of Earth observation, satellite navigation and the gradual transition to the information society.

The latest evolution goes even beyond marketing, since it seems in the process of determining a structural change in the traditional space industry. The new private companies engaging in space are innovative, have flexible organizations focused on new technologies, and are willing to take risks. New launches programs are considered, such as satellite, constellation projects with thousands of small satellites that want to

facilitate access to space through the reduction of costs and the acceleration of production.

The UN treaties dealing with activities in outer space have been concluded before the advent of commercial activities in outer space and in a political context that has significantly changed. Following several commentators, these treaties no longer seem to provide for an adequate framework to address the complex relations that have resulted from the rapid growth of commercial activities in outer space. They argue that there is an increasing number of substantive concerns that cannot be satisfactorily resolved in the current institutional framework.

The substantive concerns relate, for example, to the attribution of liability to States for damage caused by commercial activities; the identification of the launching state and the launching authority for the purposes of the UN Conventions. In addition, these concerns relate to emerging issues, such as the handling of space debris, the regulation of space tourism and suborbital flights and the possible effects of large constellations deployments on the current and future orbital debris environment, on possible risks imposed on other space missions during the operation and disposal of such constellations.

There are plans also for rendering commercial repair services to satellites in-orbit, but there are no regulations in place to cover commercial rendezvous and proximity operations. Through the construction and operation of the International Space Station, regulations have been established concerning governmental spacecraft conducting such kind of operations with other governmental spacecraft, as well as governmental spacecraft conducting rendezvous and proximity operations with commercial spacecraft.

In this context, one wonders if space law, as it has consolidated so far, is able to face the new challenges.

Issues of interpretation or re-interpretations of the treaties.

This is not a new issue. Already on the occasion of the 30th anniversary of the OST, the ECSL published a book of essays named “Outlook on Space Law over the next 30 years” where the main issue was the following: “What would the OST look like today if it had to be drafted afresh to accommodate trends in present and future space activities”? The conclusion recognized that particular provisions of the Treaty were poorly drafted or rather obscure, and required further interpretation. Nowadays, the assessments are often more severe about the inadequacy of the OST to face new challenges, mainly in matters regarding security in outer space. It has been said that “this Treaty is as wildly insufficient today as it was then It rather romantically establishes basic principles related to the peaceful uses of outer space. The semantics allow for plenty of wiggle room. Modern space legislation is desperately needed.” While these judgments seem to be excessive, there are real issues of interpretation or re-interpretation.

The need to reinterpret the Treaty is emphasized mainly where the traditional interpretation could increase the private sector requirements, as in the case of the principles of non-appropriation of space natural resources, the responsibility for damage caused by space objects or the obligation to register small satellites.

The principle of non-appropriation, contained in Art. II of the OST, declares that outer space, including the Moon and other celestial bodies, may not be subject to national appropriation by claim of sovereignty or by means of use or occupation, or by any other means. As outer and celestial bodies are subject to the regime of *res communis omnium*, there is no room for claims of national sovereignty.

The point, which raises issues of interpretation, is whether the prohibition covering the sovereignty claims on outer space and celestial bodies, which is addressed to States, also covers the possible acquisition of rights on these resources by individuals on the basis of the domestic law of the State that authorizes the activities associated with the recovery of these resources.

The position paper on space resource mining adopted by consensus by the IISL Board of Directors on 20 December 2015 states that, I quote, "in view of the absence of a clear prohibition of the taking of resources in the Outer Space Treaty one can conclude that the use of space resources is permitted. Viewed from this perspective, the new United States Act (The 2015 Commercial Space Launch Competitiveness Act) is a possible interpretation of the Outer Space Treaty. Whether and to what extent this interpretation is shared by other States remains to be seen".

Sometimes actions speak louder than words. Considering that unilateral actions and interpretations by means of national legislation are relevant pieces of practice subsequent to the conclusion of a treaty, I believe that an international dialogue on this matter is highly desirable.

In this perspective, I mention that an international working group was established in The Hague in December 2014 to identify the basic elements of an international legal framework for activities related to space resources. At the same time, the COPUOS LSC decided, at its last session, to include a single item for discussion on the agenda of the next session titled "General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources."

Clarifications concerning the interpretation of several other notions contained in the OST are also needed. With regard to the concept of "national" activity in outer space, in Art. VI, the practice of States shows that without a rigid definition in the Treaty of 1967, States are free to interpret the concept of national activities in a broader sense, which includes not only activities carried out by nationals, but also activities carried out from their territory by foreigners. Another aspect concerns the identification of the appropriate state, that is to say, the State has an obligation to authorize and supervise continuously the national activities of private entities in outer space. Not to speak of the notion of "space object". Other uncertainties regard the notions of "damage" and "fault" under the LIAB Convention.

Now, in matter of interpretation of the treaties, as well as their revision and amendment, there is a limitation affecting the COPUOS, which has no authority to deliberate on such aspects of space law and governance. The amendment and interpretation of the UN space treaties can only be agreed upon by the States parties to a treaty and this authority relies in the meetings of the parties. Nothing precludes of course the convening of such meetings, which has never occurred since the entry into force of the OST.

The other way is that the COPUOS LSC discuss and adopt resolutions taking stock of the practice in certain fields connected to the treaties, as it did in the past, with a view to recommend solutions to the member States, but specifying at the same time that nothing in the resolutions constituted an authoritative interpretation or a proposed amendment to the treaties (see resolutions on the concept of the launching State and on the registration of space objects).

In fact, treaties, including the UN space treaties, are not just dry parchments. They are instruments for providing stability to their parties and to fulfil the purposes which they embody. They can therefore change over time, must adapt to new situations, evolve according to the social needs of the international community and can sometimes fall into obsolescence.

The general question of “treaties in time” reflects the tension between the requirements of stability and change in the law. It is generally the purpose of a treaty to provide stability in the face of evolving circumstances. On the other hand, legal systems must also leave room for the consideration of subsequent developments in order to ensure meaningful respect for the agreement of the parties and the identification of its limits. It is in the interest of the security of treaty relations that such conditions should be well defined. The judgment of the International Court of Justice in the *Gabcikovo-Nagymaros* case provides a good example of how the law of treaties operates in relation to subsequent developments which may affect the meaning of a treaty.

In national law, the most important subsequent developments after the enactment of a law, or the conclusion of a contract, are amendments by the legislature or by the parties to the contract, and evolutive interpretations by courts. In international law, the situation is more complicated. Different sources, in particular treaty and customary law, are subject to different rules and mechanisms; moreover, they interact with each other.

In the case of customary law, subsequent developments are, in principle, part of and not different from the process of formation of customary law itself. However, the role of customary law has been always very limited in this branch of international law, which is space law.

In this perspective, I think that it is a good choice to involve the COPUOS LSC in the consideration of the role of customary law with regard to the regulation of space activities. The set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, taking into account the UNISPACE+50 process, includes precisely a question which relates to identification of the role of customary law within the UN treaties on outer space.

On the other hand, we cannot rely on evolutionary interpretations by courts, because there were no cases until now brought to the attention of international tribunals for their settlement. We have no judiciary decisions by the ICJ on disputes relating to outer space activities.

Thus, we have to rely mainly in subsequent practice to the treaties and, in particular, to these important pieces of practice that are the non-legally binding instruments adopted at the international level. Many commentators focus on the issue of the legal nature of these instruments and see them as a departure from the rule of law. They argue that the adoption of such kind of normative instruments has damaged the legitimacy and effectiveness of international space law. I do not share this opinion.

Now, it is true that over the last years, States have relied increasingly on non-binding agreements to govern space activities, and this practice is yet consolidating. The fact is that there is an increasing number of substantive

concerns that cannot be satisfactorily resolved in the current institutional framework or that cannot be covered by binding instruments in a short time. Non-legally binding frameworks may respond to a broad range of regulatory concerns. While non-binding, they represent the firm expectation of responsible behaviour from the participating States, reflecting the values and aspirations of the group that accepted them. Furthermore, as I said, they are “subsequent practice” to treaties in force and in this perspective they play a paramount role in the interpretation of these treaties, as it is spelled out in the Vienna Convention on the law of treaties.

Substantive concerns addressed through non-legally binding instruments relate mainly to critical nuisances issues. I would mention, in particular, initiatives such as the measures recommended by the Group of Governmental Experts on Transparency and Confidence Building Measures in Outer Space Activities (GGE) in its 2013 report (GA resolution 68/50 of 5 December 2013, encouraging member States to review and implement the proposed TCBMs). In the same line, we can also mention other initiatives implementing at the multilateral level the recommendations of the GGE, such as the draft International Code of conduct on outer space proposed by the European Union.

Lastly, let me say a few words on the institutional aspects of the space governance. Here, the COPUOS should be recognized as the “anchor institution”. A functioning space governance system requires a governance structure mutually supportive with space law. The COPUOS, as a standing committee of the UNGA, is the international forum for the development of draft normative instruments, such as treaties, principles and guidelines governing activities in outer space.

In saying that, I admit that other options, already discussed in the past, seem to be largely inadequate within the current situation and not worthy to be taken again into consideration. I refer to the adoption of an autonomous institutional arrangement envisaging the establishment of a new framework for the governance of outer space activities, or to the

creation of a treaty body or o the negotiation of a comprehensive convention on space law.

The addition of new items to the agenda of the COPUOS LTS (space traffic management, small satellites activities and potential legal models for activities in exploration, exploitation and utilization of space resources) is a fundamental step towards the strengthening of the COPUOS as “anchor institution” for space governance. I am confident that the forthcoming preparations for marking the fiftieth anniversary of the OST in 2017 and the preparations for UNISPACE+50 will constitute the best opportunities for realizing the objectives already set out by the Committee and by UNOOSA for reinforcing space law and governance.