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**Committee on the Peaceful  
Uses of Outer Space  
Legal Subcommittee  
Fifty-fourth session  
Vienna, 13-24 April 2015  
Item 5 of the provisional agenda\*  
Status and application of the five United Nations treaties  
on outer space**

**Answers from the Chair of the Space Law Committee of the  
International Law Association (ILA) to questions by the  
Chair of the Working Group of the LSC**

1. **United Nations treaties on outer space and provisions related to the Moon and other celestial bodies**
- 1.1 **Do the provisions 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 (Outer Space Treaty) constitute a sufficient legal framework for the use and exploration of the Moon and Other Celestial Bodies?**

Answer:

Yes, on general lines they do, in spite of some gaps left by the Outer Space Treaty (OST) which remain open to interpretation and which the Moon Agreement has failed to cover.

The provisions of the Moon Agreement could be seen as slight step forward in the progressive development of international law but still have not solved some lacunae left by the Outer Space Treaty. In the first place the longstanding debate over rights of ownership on the Moon, as embodied in Article II of the Outer Space Treaty, remains unclear. Secondly, the definition and legal status of natural resources on the moon and celestial bodies is unresolved. This is a matter of concern given the outstanding technological development and programmes — both underway and envisaged for the short and medium term — regarding the exploration, exploitation and possible mining activities on the Moon and other Celestial Bodies. It is essential

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\* A/AC.105/C.2/L.295.



to bear in mind, at all times, that the scope and application of the Outer Space Treaty and the Moon Agreement extend to outer space, the Moon and other Celestial Bodies as well.

Moreover, Article 11 of the Moon Agreement has introduced elements of confusion when stating, in no uncertain terms, that the Moon and its resources are the common heritage of mankind. In addition, paragraph 5 of this Article, when speaking of an “international regime, including appropriate procedures to govern the exploitation of the natural resources of the Moon” -inspired, no doubt, in the provisions of Part XI of the 1982 Convention on the Law of the Sea when dealing with the “Area” — was untimely then and possibly today as well. As experience has often shown, states appear reluctant to engage in further binding obligations on the international arena when they do not know exactly what the balance sheet will be as technology continues to develop. As to the environmental aspects of the Moon Agreement, it may be wondered whether they should be seen as an improvement over Article IX of the Outer Space Treaty which lays down a duty of international cooperation, leading to consultation procedures when a country involved in experiments in outer space has “reason to believe” that its activity might cause harm to the environment.

The ILA examined these issues profoundly at its Seventieth Biennial Conference (New Delhi 2002). The Space Law Committee, in its Final Report on the “Review of the Space Law Treaties in View of Commercial Space Activities — Concrete Proposals” was asked to establish the consistency of the United Nations Treaties on Outer Space in view of commercial space activities concluding that,

“Regarding the Moon Agreement, the common heritage of mankind concept has developed today as also allowing the commercial uses of outer space for the benefit of mankind, and that certain adjustments are suggested to Article 11 of this Agreement concerning the international regime to be set up for the exploitation of the Moon resources which will make it more realistic in today’s international scenarios”, (Report of the Seventieth Conference of the ILA, Resolution 1/2002 13-15, Full Report by the Chair and Working Session, 192-22).

Another drawback shown not only by the Moon Agreement but by all five United Nations Space Treaties was that dispute settlement mechanisms were only open to sovereign states and international intergovernmental organisations. This situation, even at the time, was inconsistent with the regional and international settings where commercial space activities were growing exponentially. Thus the reason for the ILA having embarked in 1998 in the drafting of a “Revised Convention on the Settlement of Disputes Related to Space Activities” which included provisions enabling the access of private parties to the dispute settlement procedures specified in that Convention This document was approved by the Sixty-Eighth ILA Conference without dissent (ILA Report to the Sixty-Eighth Conference, in book format, Space Law Committee, 239-298).

Following this line of thought on 6 December 2011 the Permanent Court of Arbitration (PCA) adopted the “Optional Rules for Arbitration of Disputes Relating to Outer Space Activities” open to states, international organisations and private parties as well, thus reflecting a sign of the times. These Rules, procedural in nature, stand out for their flexibility and are seen as a significant step forward which

brought to an end the above mentioned limitations underlying the United Nations Space Treaties in the field of dispute resolution procedures.

**1.2 What are the benefits of being a party to the Moon Agreement?**

Answer:

This depends very much on the country or group of countries we are thinking of. Among the fifteen States having ratified the Moon Agreement examples of both developing and industrialised States may be found. The existence of a “quid pro quo” should therefore be established in a case by case examination taking into account the different elements converging in each particular instance. Some of the States Parties to the OST are on solid grounds to say that joining the Moon Agreement at this stage would hardly be an advance in the development of international law. Consequently, the legal framework provided by the OST would appear enough for the exploration and use of the Moon and Other Celestial Bodies.

**1.3 Which principles or provisions of the Moon Agreement should be clarified or amended in order to allow for wider adherence to it by States**

Answer:

The timid support given to the Moon Agreement since its adoption in 1979 is possibly linked to some of the reasons listed above, when answering Question 1.1, and which are standing in the way of wider adherence to the Moon Agreement,

On this point it may be added that the low number of ratifications required for the coming into force of the United Nations Space Treaties was unrealistic, especially in the specific example of the Moon Agreement -where very few of its provisions reflect customary international law. This led to conflicting views and interpretations still unresolved.

At this point in time it is recommended to review this Agreement in new light taking into account current state practice and the recent developments of space activities and their impact on regional and international settings. This question is dealt in more detail later, when answering part 4 of this questionnaire.

**2. International responsibility and liability**

- 2.1 Could the notion of “fault”, as featured in articles III and IV of the Convention on International Liability for Damage Caused by Space Objects (Liability Convention), be used for sanctioning non-compliance by a State with the resolutions related to space activities adopted by the general Assembly or its subsidiary bodies, such as Assembly resolution 47/68 on the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, and the Space Debris Mitigation Guidelines of the Committee in the Peaceful Uses of Outer Space; in other words, could non-compliance with resolutions adopted by the general Assembly or with instruments adopted by subsidiary bodies related to space activities be considered to constitute “fault” within the meaning of articles III and IV of the Liability Convention?**

Answer:

Only in cases where the UNGA resolution is declaring customary international law, namely a general practice plus an *opinio juris generalis*, would a non-compliance with the UNGA Resolution constitute a breach of international law and, specifically of the Liability Convention (Articles III and IV dealing with fault liability).

**2.2 Could the notion of “damage”, as featured in article I of the Liability Convention, be used to cover loss resulting from a manoeuvre, performed by an operational space object in order to avoid collision with a space object or space debris, not complying with the Space Debris Mitigation Guidelines of the Committee.**

Answer:

This situation is remindful of the time (on 28 June 2011) when six astronauts aboard the International Space Station (ISS) were forced to seek refuge in the auxiliary vehicles designed for emergency evacuation in cases of impact from floating space debris travelling perilously close to the ISS. As reported later by NASA the debris threat was not detected in time for manoeuvring. Even though no harm was caused in the operation it could have easily been otherwise. LEO, where the ISS was operating, is nowadays densely populated (Reuters, EFE and AFP. Information provided by LA NACION, a leading morning newspaper in Buenos Aires, Argentina, 29 June 2011. See also “Report of the Seventy-Fifth Conference of the ILA, Sofia 2012, by the Space Law Committee Chair, Part I, subchapter on Space Debris, 299-303”.

Coming back to the concrete question from the Working Group Chair, it should be borne in mind that the definition of damage embodied in Article I of the Liability Convention is one of the widest, to date, in the field of international law. Should the damage in question be the result of a legitimate activity, an obligation to compensate would still arise in accordance with a general principle of international law. The operator of the space object would be internationally responsible for damage (either directly, if acting as a sovereign state, or indirectly, in the case of a NGO. The state having authorised the activity is also committed to supervise it continually (Article VII OST) and is internationally responsible for damage and internationally liable to pay compensation. Furthermore, the principle of good faith plays an important part in elucidating these questions, particularly if the case is taken to court. At the stage of evidence issues such as negligence, gross negligence, wilful misconduct when manoeuvring, recklessness to avoid collision and so forth, need to be carefully scrutinised.

Be that as it may, the Space Debris Mitigation Guidelines are not, per se, a binding instrument today.

**2.3 Are there specific aspects related to the implementation of international responsibility, as provided for in article VI of the Outer Space Treaty, in connection with General Assembly resolution 41/65 on the Principles Relating to Remote Sensing of the Earth from Outer Space?**

Answer:

The sensed state is certainly more effectively protected by relying on Article VI of the OST which, in addition to being binding, makes states internationally responsible for national activities in outer space. Unlike the OST, the “Principles Relating to Remote Sensing of the Earth from Outer Space” is a non-binding instrument except when declaring customary international law, which is not the case of Principle XIV addressing international responsibility. This Principle would be confining the scope of Article VI of the OST to “states operating remote sensing activities” (Cf. Bin Cheng, *Studies in International Space Law*, Clarendon Oxford, 1997, especially Chapter 22, 572-597). Moreover, as observed at the ILA Conference in Berlin, Principle XIV seems to exclude the use of remote sensing by third parties (see Niklas Hedman in “Report of the Seventy-First Conference of the ILA- Berlin 2004”, *Space Law Report*, Part I by the Committee Chair, 732-772 at 742.)

In brief, Principle XIV -which, as pointed out in the previous paragraph, is non-binding- would be limiting the application of Article VI of the OST, which is binding. This creates an unwelcome confusion -in the abstract, at least- surrounding responsibility for remote sensing activities vis-à-vis responsibility for outer space activities. But, in fact, we are discussing a non-problem. Article VI definitely prevails.

It is therefore recommended that state responsibility for remote sensing activities be read together with the obligation of state authorisation and supervision embodied in Article VI of the OST and applicable to all activities in outer space.

This is the predominant position within the ILA Committee which, it is submitted, simplifies the answers to this point.

### 3. Registration

Answer:

Questions relating to this area are closely interwoven with matters of private international law and will be addressed from a general standpoint.

For example, **Question 3.1** could possibly be answered in the affirmative albeit with some difficulty. Arguments could be based on the general principles proclaimed by the OST and the Registration Convention taking due account of UNGA Resolution 62/101 of 17 December 2007. However so, general international law has a necessary role to play when coming across the gaps in the law -some of which remain insurmountable. It follows that a clearer framework is essential for the effectiveness of the substantial provisions embodied in the above-mentioned instruments and to ease the way for practical solutions and harmonisation.

In this context attention ought to be directed to paragraph 3 of the above-mentioned UNGA Resolution, especially in connection with international intergovernmental organisations and issues arising from the fact that some of the States members of the organisation may not have declared their acceptance of the rights and obligations under the Registration Convention. This problem is linked to the very essence of Question 3.3 referring to the complexity of the responsibility structure of international intergovernmental organisations, as worded in paragraph 3 (a) of the UNGA Resolution of reference.

The net conclusion is that a thorough review of the procedural aspects of registration is recommendable at this stage focusing on the possibility of national space legislation to harmonise these thorny matters, and with emphasis on technical aspects as well. This course of action would help in facilitating issues arising from the transfer of registration of activities or ownership of a space object during its operation in orbit, as outlined in **Question 3.2**.

#### **4. International customary law in outer space**

**Are there any provisions of the five United Nations Treaties on outer space that could be considered as forming part of international customary law and, if yes, which ones? Could you explain on which legal and /or factual elements your answer is based?**

Answer:

Yes, indeed many. There are numerous examples to be identified in the previous answers, clearly indicating that customary international law has a fundamental role in the fields of Space Law. Pride of place is given to international cooperation, a recurrent note in the five United Nations Treaties, Principles and Declaration to which good faith, self defence, international responsibility and others may be added.

The OST, also referred to as the “Treaty on General Principle’s”, stands out as model of the kind. By and large the rules of customary law ingrained therein override those of conventional law. One of the few exceptions is Article II addressing the principle of non-appropriation and banning any claims of sovereignty over those regions. This Article carries elements of customary law and conventional law as well. From the early days this provision was not seen with favour by some of the delegations to COPUOS, particularly France when pointing out certain ambiguities in its interpretation (see Doc A/AC.105/PV.44, p.41, 19-09-66). Belgium, among other delegations, supported the general idea that “non-appropriation” covered both the establishment of sovereignty and the creation of titles of property in private law (A/AC.105/C.2/SR.719 and Add. 1, p. 7, 04-08-66). The opinion was harshly divided at the time.

To be precise Article II is reflecting customary international law only when referring to outer space *stricto sensu* which, by nature, and by analogy with the high seas, cannot be appropriated. Article II only lays down new rules when applied to the moon and other celestial bodies which before the OST were *res nullius* and, therefore, claims of sovereignty would have been legitimate pursuant to the traditional rules of international law governing occupation and claims of sovereignty on Earth.

When the OST came into force the legal status of the moon and other celestial bodies changed radically. As Bin Cheng observed at the time, since there was no territorial jurisdiction in outer space or celestial bodies there could be no private ownership of parts thereof which presupposes the existence of a territorial sovereign itself competent to confer any such titles. The indisputable conclusion is that outer space and celestial bodies are not subject to national appropriation nor are they subject to appropriation under private law (Le *Traité de 1967 sur l’Espace*, *Journal de Droit International*, *Clunet* N°3, 1968, 532-645, at 568). This position was confirmed by the ILA in a number of its Biennial Conferences (see “Reports of the Space Law Committee”) and also supported in 2009 by the International Institute of

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Space Law (IISL) (see the “The Moon Agreement in the Current Scenarios” by the Space Law Committee Chair, Proceedings of the IISL 2010, 117-129).

Yet, the precise legal nature of natural resources, as indicated at the outset, remains an open question. It may be argued that article 11 of the Moon Agreement goes beyond article II of the OST in that it speaks of the “Moon and its natural resources” in Art. 11.1. However, when banning claims of sovereignty by means of use, occupation or by any other means, only the Moon is mentioned in 11.2 but not its resources. On the other hand, article 11.6 of this Agreement envisages the possibility of collecting Moon samples which could be interpreted as a kind of “right of property” on the part of the State collecting those samples in spite of, as Bin Cheng points out, that the word “property” has been cautiously avoided (See “The Moon Treaty”, Current Legal Problems, Stevens & Sons, London 1980, Vol.33, 213-237). It is interesting to point out that the OST does not use the term “exploitation” one single time whereas the Moon Agreement does in 11.5 when referring to the “exploitation of the natural resources of the Moon”. As part of the doctrine concurs, this possibility is envisaged for the future in accordance with article 11.5, when stating “when such exploitation is about to become feasible”.

It follows that the way ahead is long and tough when trying to clarify these concepts. However, we cannot escape the fact that the Moon Agreement sheds no light on what ought to be considered “natural resources” from a legal optic.

The prevailing view today is to keep the Moon Agreement afloat. The points of contention brought up in these answers and perceptions, particularly on Article 11 and the yet unresolved issues concerning the legal nature of natural resources and mining activities on the moon and celestial bodies, would be best tackled and refined in a separate document, in sharp departure from the limited reach of the Memorandum of Understanding “annexed” to the Moon Agreement. This document, which may have been useful for clarification purposes at the time of adoption of the Agreement, very rarely is attached to the Agreement when circulated or published.

Time seems ready -although perhaps not the political moment — to give Article II of the OST and the controversial sides of the Moon Agreement a more precise legal meaning. In this quest a realistic discussion on the possibility of agreeing on some special kind of “ownership” appears opportune, perhaps using different or new terminology to avoid confusion and misinterpretations. This would help addressing the problem in its prime colours as distinct from the infinity of cross shades held by the doctrine, where lines of fracture are expected to continue. Likewise, and for practical reasons, a watching brief should be kept over current state practice regarding the Moon Agreement.