IAC-08.E8.1.10

# THE FUTURE OF THE UNIDROIT DRAFT SPACE PROTOCOL: LEGAL PROPOSALS TO FAVOUR AND STIMULATE ITS SUCCESS[1]

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## Abstract

The main purpose of the UNIDROIT Draft Protocol on matters specific to space assets is to encourage private financiers to invest in space activities. By establishing provisions dealing with financing space assets and securing the interests of creditors, the Protocol tries to set out a legal environment which makes financiers protected when loaning money for space ventures.
However the Draft Space Protocol fails to do so. Its provisions, indeed, not only are unable to define a clear legal framework governing security interests in space assets but also raise problems of compatibility and consistency of the Protocol with the existing *corpus iuris spatialis* and with national laws regulating the concession of licenses.
These limits of the provisions of the Draft Space Protocol have created vast uncertainty between both space operators and potential financiers of space activities by causing, thus, the refusal of States to accept and ratify the text of the Protocol.
Considering the fact that the negotiating process of the Draft Space Protocol has reached a deadlock, it is time to put forward some proposals aimed at providing the Draft Space Protocol with bigger chances of success.
Therefore, this paper will analyze the limits of the Draft Space Protocol and will propose several solutions aimed at making it a valuable and workable instrument for supporting the participation and involvement of financiers in current and future space activities.

## Full Text

### INTRODUCTION: THE NEED FOR AN INTERNATIONAL REGIME GOVERNING SECURITY INTERESTS IN SPACE ASSESTS

While States once dominated the exploration and use of outer space, since the early 1990s private operators have become increasingly involved in the carrying out of space activities.

This shift from a State/government dependent to a more and more privatized space industry, apart from generating questions related to the workability of the existing space law regime in the era of the commercialization of outer space, has created one major problem: the financing of private space activities. In order to start-up their space projects,

indeed, private operators need an enormous amount of money.

Generally speaking, one way of attracting capital into industries is the existence of a reliable system for securing lending, thanks to its ability to diminish the cost of capital due to a reduced risk undertaken by creditors. While at domestic level, creditors may usually rely on secured lending, on the contrary, at international level, there are many difficulties associated with taking security in mobile assets that they may move from jurisdiction to jurisdiction. These problems are exacerbated with regards to financing of space assets, mainly due to the characteristics of the private operators carrying out space activities and to the nature of space assets.

On the one side, indeed, private operators usually have small or no credit history. This fact generates uncertainty among lenders who fear the risk of not being repaid, particularly in the case of bankruptcy and insolvency of the debtor. The effect of such uncertainty is the increasing of the costs related with space-assets based financing. On the other side, taking security in space assets is made particularly difficult by the same nature of space assets. For instance, a satellite in orbit is difficult to repossess. This means that a common remedy available to creditors in case of debtors 'default is not applicable, at least in its conventional meaning. Additionally, enforcement of remedies may be complicated by the fact that outer space does not fall under the jurisdiction of any State and that most of the facilities used in the course of space operations, such as ground stations for telemetry, tracking and control purposes, are usually located in a number of different jurisdiction. Finally, there are problems associated with the fact that more and more satellites carry on board transponders and that such transponders may be operated, leased or owned by several parties.

All these problems with taking security in space assets makes the legal regime applicable to financing of space assets very unclear and discourage financiers to invest money in private space projects. Clearly, this fact has a very negative impact on the space industry and has the capability for stopping the commercial development of outer space. Particularly, new space operators face financial difficulties since many of them do not have the financial standing to be attractive for lenders.

In order to solve these problems and to respond to the need for uniform and predictable rules applicable to high value mobile equipment, particularly with regard to conflict of law and remedies in case of default, the International Institute for the Unification of Private Law (UNIDROIT) [2] began working on a preliminary version of the Convention on International Interests in Mobile Equipment in the early1990's[3].

As the work on the Convention proceeded, it was decided to complement the base Convention with three asset-specific protocols, one for aircraft, one for railway rolling stock and one for space assets.

In 1997 a working group wit the task of preparing a preliminary draft Protocol on matters specific to space assets (hereafter, the Draft Space Protocol) was set up. Since the beginning of the operations of the working group, it was clear that its members agreed on the fact that creditors involved in space industry were not adequately protected by existing domestic secured transactions and that, consequently, opportunities for

asset-based financing were reduced. Private international law or conflict of law rules were considered to be unsatisfactory for mainly two reasons. First, each domestic system has its own conflict of laws rules for transactions with trans-border elements. The problem is that solution provided in one domestic system may not be applicable in another. Second, conflict rules differ from jurisdiction to jurisdiction. This fact creates a risk of forum shopping which may finally weaken the effectiveness of a security right.

Relying upon these considerations, the members of the working group were strongly of the idea that an international regime governing security in space assets was an effective means of facilitating space commerce, expanding the private market for financing and reducing the costs of financing.

In 2001, a preliminary Draft Space Protocol was presented by the working group to UNIDROIT. After some revisions, a new version of the Protocol has been issued in 2003 [4]. However, unlike the Convention on international interests in mobile equipment[5] (hereafter the Convention) and the two other protocols [6], whose texts have been adopted and opened for signature and ratification by States, the text of the Draft Space Protocol has not been accepted by States. Currently, the negotiating process of the Draft Space Protocol is facing a deadlock and its positive conclusion seems to be far from being reached. Why?

The basic point is that the Draft Space Protocol, as it stands today, is unable to create a safe and clear international framework to finance space assets. Both States and representative of manufactures, financiers, insurers and representatives of international organizations have expressed their doubts on the workability of the Protocol. The problem with the Draft Space Protocol is that its practical application raises several questions of compatibility with existing space law regime, for instance with regard to issues like jurisdiction and control of the launching States over its space objects, international liability of the launching State for damages caused by space objects and licensing procedures for space activities.

Additionally, some elements of the Draft Space Protocol, such as considering related rights, namely licenses, permits, etc. as "properties" which can be transferred and moved from one jurisdiction to another are rather questionable.

The present paper will address the major contradictions and problems of the Draft Space Protocol by putting forward solutions and proposal to solve them. In this way, this paper tries hopes to provide a contribution to the positive conclusion of the negotiating process of the Protocol. This paper, indeed, strongly holds the idea that an international instrument regulating financing of space assets is needed and that the benefits that may be generated as a result of its proper functioning are extremely relevant.

## THE CONVENTION ON INTERNATIONAL INTERESTS IN MOBILE EQUIPMENT AND THE DRAFT SPACE PROTOCOL

Before going into the analysis of the specific problems of the provisions of the Draft Space Protocol, it is important to understand the relation between the Protocol and the Convention.

It has always to be kept in mind that the Draft Space Protocol is meant to

complement the Convention. In accordance with Article 6 of the Convention, indeed, the Convention and the Protocol must be read and interpreted together, since they constitute one single instrument. In case of inconsistency, however, the Protocol prevails.

The Convention, read in conjunction with the Protocol, applies when at the time of the conclusion of the agreement, (for instance, security agreement, title reservation agreement, leasing agreement or sale) creating for "the international interest", the debtor is located in a contracting State [7]. The applicability of the Convention is not affected by the location of the creditor. This provision is based upon the theory that the location of the secured debtor[8] is the place from which the debtor mainly runs the business related to the collateral and where the third parties can verify whether or not the debtor is subject to the rules of the Convention and Protocol (for instance, by determining if the host State is a contracting State).

If the debtor defaults, the Convention gives to the creditors the following options: take control or possession or control of the assets, sell the assets or grant a lease, or collect income from the assets. Additionally, in case of default, the creditor may obtain court assistance to preserve the assets, gain possession, lease or manage them. Article IX, b (i) of the Draft Space Protocol states that: "*any remedy given by the Convention shall be exercised in a commercially reasonable manner*". Article IX, b (ii) specifies that a remedy is exercised in a commercially reasonable manner where: "*it is exercised in conformity with a provision of the agreement between the debtor and the creditor except where such provision is manifestly unreasonable*". The Convention also requires that remedies be exercised in conformity with the procedure of the law of the place where the remedy is to be exercised. The purpose of the provision is to preserve State sovereignty.

Another interesting feature of the Convention is that, in conjunction with the Draft Space Protocol, it foresees the establishment of an International Registry to secure the financial interests of investors in space system and other mobile assets. This Registry is to be created by a Supervisory Authority whose tasks range from appointing and terminating the Registrar, assuring continuity of the Registry in case the Registrar is dismissed, defines the operational rules of the Registry, and many others. There are several advantages connected with the creation of an International Registry. For example the increased publicity which not only may protect third parties form being mislead by the false perception of wealth projected by debtor's possession of an asset but also may allow creditors to check whether a debtor's asset is charged with security.

## RELATION BETWEEN THE DRAFT SPACE PROTOCOL AND INTERNATIONAL SPACE LAW: A PROBLEM OF COMPATIBILITY

As mentioned in the introduction of this paper, one of the main reasons behind the refusal of States and private financiers to accept the Draft Space Protocol is the lack of compatibility between the Protocol and the existing international space law.

This incompatibility not only may prevent the implementation of the Protocol's provisions but also may undermine the ability of States to comply with the obligations they have

accepted when ratifying the space law treaties[9].

It is certainly true that the Draft Space Protocol differs from the space treaties in terms of purpose and nature. The former is an instrument of private international law dealing with securing financial interests of investors who have provided funds for outer space activities. The latter are instruments of public international law aimed at regulating public and private activities in outer space.

However, the Draft Space Protocol deals with the uses of outer space and should not therefore conflict with space law.

The importance of avoiding conflicts and of ensuring compatibility between the provisions of the Draft Space Protocol and the space treaties was well spread among the drafters of the Protocol. Indeed, the Preamble of the Draft Space Protocol reads:

"*Mindful of the established principles of space law, including those contained in the international space treaties under the auspices of the United Nations*".

Nevertheless, in my opinion, the Draft Space Protocol conflicts with the space law treaties with regards to the following points:

1) terminology;
2) inclusion of related rights in the definition of space assets (related rights as "movable rights")
3) liability issues: relation between default remedies and obligations of the "launching State"
4) jurisdiction issues: relation between jurisdiction of a State over its space object and choice of law of the Parties to the Protocol
5) priority of competing rights/public service exemption from default remedies

1) TERMINOLOGY

Article I (b) of the Registration Convention as well as Article I (d) of the Liability Convention provide a definition of the term "space object" which reads: "*the term space object includes components parts of the space objects as well as its launch vehicle and parts thereof*".

The Draft Space Protocol uses the term "space asset" which, according to Article I (2) (g) of the Protocol, consists of: (i) *any separately identifiable asset that is in space or that is intended to be launched and placed in space or has been returned from space*; (ii) *any separately identifiable component forming part of an asset referred to in the preceding clause or attached to or contained within such asset*; (iii) *any separately identifiable asset or component assembled or manufactured in space*; *and* (iv) *any launch vehicle that is expendable or can be refused to transport persons or goods to and from space*".

The Protocol's definition of "space asset" is broader than the definition of "space object" provided in the Liability and Registration Conventions. This fact immediately generates an intuitive problem: some "space assets" may not fall within the scope and application of the space law treaties. This means that States may find themselves in a situation in which they apply different rules to the "space assets" belonging to one single space object. This situation clearly causes problems of understanding of the applicable legal regime relating to that space object.

The different extension of the terms "space object" and "space asset" raises some additional questions and problems. For instance would the Moon and other

celestial bodies fall under the definition of "space assets" used in the Draft Space Protocol"? While, theoretically, celestial bodies, including the Moon, may be considered to be "space assets", however they are not "space property" since Article II of the Outer Space Treaty prohibits appropriation of and creation of property rights over outer space, including the Moon and other celestial bodies[10].

Similar problems may arise when referring to other "space assets" such as orbits, orbital positions, and the radio frequency spectrum (RFS) [11]. These "assets", indeed, cannot be appropriated. Using an orbital location does not confer any property rights on its user, due to the global commons nature of such location. The point is that while a "space object" may well be a "space asset", the contrary is not always true, especially when space property rights considerations are involved.

The present paper argues that when preparing the next version of the Space Protocol, its drafters must pay particular attention in analyzing and clearly defining the distinction between the terms "space object" and "space asset", in order to avoid contrasts and incompatibilities between them.

## RELATED RIGHTS

According to Article I (2) (f) of the Draft Space Protocol related rights means:

"*Any permit, licence, authorization, concession or equivalent instrument that is granted or issued by, or pursuant to the authority of, a national or intergovernmental or other international body or authority to manufacture, launch, control, use or operate a space asset, relating to the use of orbits positions and the transmission, emission or reception of electromagnetic signals to and from a space asset*".

The problem with the interpretation of the term "related rights" provided by the Draft Space Protocol is that it seems to consider licenses as negotiable property, as commodities in which financial interests may be secured. This is clearly a very sensitive aspect from a financier's point of view, due to the fact that the value of a space object as collateral depends to a large extent on the transferability of licenses.

Licenses, however, are not negotiable properties, nor they are "rights". They are privileges and/or prerogatives, granted by an official governmental entity to a specific operator in accordance with national licensing procedures. Once the license has been issued, the licensee is allowed to perform a certain activity, whether on Earth or in outer space. It has to be kept in mind that the granting of a license is not an obligation of the official entity: it decides whether or not to grant a license in case the applicant meets certain requirements and criteria.

Considering licenses or any other government authorization as a transferable assets, as the Draft Space Protocol seems to do, could lead to a situation in which private operators take over a key government function, namely the right to provide licenses. This, of course, is a situation which States will never accept.

The crucial point is that in most jurisdictions, licenses cannot be transferred from the original applicant to another without the prior authorization of the entity which has issued the license in the first place. Therefore, if private operators were allowed to transfer licenses without official approval of the transfer, States will loose one of their

primary prerogatives, namely the power to grant licenses. Thus, I think that the approach followed by the Draft Space Protocol, considering licenses and other authorizations as movable rights, has not real chances to be agreed upon by States. Additionally, other problems associated with considering licenses as movable rights may be provided. For instance, in case licenses to use an orbital location or the radio frequency spectrum are considered negotiable rights (rather than privileges granted by an official national entity), the outcome will be the appropriation by private parties of outer space resources. This result will represent a clear violation of the terms of Article II of the Outer Space Treaty prohibiting the appropriation of outer space and the resources contained thereof[12].

As a consequence of all the above mention problems related with deeming licenses and other government authorizations as transferable rights, this paper argues that any reference to related rights should be removed from the text of the Draft Space Protocol. As it has been analyzed, indeed, related rights are inadequate to be subject to security rights at international level.

This paper proposes to regulate licensing procedures at national level. A national space act could indicate conditions and procedures under which a license may be transferred. Such procedures should focus on the reliability and creditability of potential licensees. In case both conditions are given, it would be possible for a license to be transferred from a user to another.

## LIABILITY ISSUES: RELATION BETWEEN DEFAULT REMEDIES AND OBLIGATIONS OF THE "LAUNCHING STATE"

According to Article VII of the Outer Space Treaty as well as Article II and III of the Liability Convention, the launching State is liable for damage caused by its space object.

While Article VI of the Outer Space Treaty sets out the principle that State are responsible for national activities in outer space and that such activities must be authorized and constantly supervision by the State, Article VIII of the Outer Space Treaty indicates the State that has registered a space object shall retain jurisdiction and control over it.

It may happen that as a result of default remedies provided by the Draft Space Protocol (Article VIII and X) a satellite which is subject to security agreements may be taken into possession and control, sold or leased to another operator from another country. In case an accident occurs through or after the changes in control, the launching State may find itself in a situation in which it can be held liable for damage caused by a foreign operator which is not under its jurisdiction.

As it has been rightly pointed out[13], it is true that a situation in which the launching State is unable to control its space object that has been transferred to a creditor is not unique to the Draft Space Protocol. There is, for instance, the case of an Indonesian satellite (Palapa B) which was repossessed by the insurer (Lloyds), and where the insurer took title to and control over the satellite, while assuming full liability for potential damage until the moment in which the satellite was retrieved by the Space Shuttle. This, however, remains as an exception and, at the moment, space law

does not provide a clear set of rules applicable to this case[14].

Nevertheless, although the above situation is not unique, it does not mean that something must not be done. It is important, indeed, to clarify what are the right and duties of the parties involved. It has always to be kept in mind that the purpose of the Liability Convention is to protect third parties from damages caused by space objects. Therefore, it is extremely relevant to determine who, between the launching State and the operator/State which has assumed control of the satellites, has to pay compensation for the damage caused by the space object.

Let's take the case in which a creditor has made use of his default remedies and has taken control of the satellite on which he had security agreement. It may well happen that the creditor is not very familiar with space law neither with the concept of launching State. The creditor, indeed, relying upon normal principles applicable in case of insolvency, has taken possession of his secured satellite and he has decided to operate it. Therefore, at this stage of the process no agreement between the creditor and the launching State exists.

In case an accident occurs through or after the change in control, the damaged State will ask compensation from the creditor/operator. Following the advices of his legal advisors, the creditor will present to the launching State a claim for compensation. The launching State will refuse by arguing that when the satellite was transferred to the creditor, it had assumed that the creditor had accepted liability for damage which may occur after the transfer. The launching State will also rely on existing State practice to support its interpretation.

The result will be that they will not be able to decide who will have to pay for the damage and, thus, they will go to court to settle their dispute.

The major effect of this situation is that the primary purpose of the Liability Convention, namely to protect a third Party which have suffered damage caused by a space object and to guarantee them compensation for such damage, will be betrayed. Such a Party will have to wait for a long time before being compensated, always assuming that the court is able to settle the dispute.

The question, then, is: what can be done to protect third parties in case of damage caused by a space object?

The best way to deal with it is by means of a bilateral agreement signed between the launching State (or States) and the creditor when the change in control takes place. In this manner, the duties of the parties involved and the liability issues may be settled.

What can the Draft Space Protocol do in this respect? How can it help third parties?

This paper proposes to introduce in the text of the Protocol a provision which reads as follow: in case of damage caused by a space object to third parties following the implementation of default remedies, compensation to the damaged parties shall be guaranteed.

Such provision will not indicate which one of the parties involed will have to pay compensation for the damage. However, it will have the advantage to create an obligation for those parties to find an agreement regulating the issue of liability when the transfer of satellite from the launching State to the creditor takes place. This provision will, therefore, provide a higher level of protection for third parties damaged as a result of space activities.

JURISDICTION ISSUES: RELATION BETWEEN JURISDICTION OF A STATE OVER ITS SPACE OBJECT AND CHOICE OF LAW OF THE PARTIES TO THE PROTOCOL

According to Article VIII of the Outer Space Treaty, the State of registration retains jurisdiction and control over the space object it has registered. This means that not only the courts of the State of registration will be competent on matters related to the space object but also that the law of that State should be applicable to all transactions concerning that object.

Article 42 of the Convention gives parties the right to choose the forum for their transaction. This forum does not need to have any relation with the parties or the space object. In addition, Article 43 (1) of the Convention provides for another option for the relief pending final determination, which is explained in Article 13 of the Convention: "The courts if a contracting State chosen by the parties and the courts of the contracting State on the territory of which the object is situated have jurisdiction to grant relief under Article 13 (1) (a), (b), (c) and Article 13 84) in respect of that subject. The same principle is repeated in Article 20 of the Protocol. Regarding the relief pending, one may wonder how to interpret the term "the contracting State on the territory of which the object is situated", when the transaction concerns satellite. Should the State of Registration be considered the competent State?

Additionally, Article VIIII of the Protocol indicates that the parties may agree on the law governing their contractual obligations, unless the contracting State makes a declaration. Is this provision not inconsistent with the exclusive control over the space object of the State of registration?

Contractual rights and property law have a complex relationship. In a security agreement, parties may choose the law which will apply to their contractual relationship under the Draft Space Protocol. However, regarding property law, the law of the State of registration will apply. This means that the Draft Space Protocol does not offer a clear picture of the issue of the applicable law to the security agreement. Therefore, this paper recommends this issue to be further analyzed and clarified in the next version of the Draft Space Protocol.

PRIORITY OF COMPETING RIGHTS ASSIGNMENTS/PUBLIC SERVICES EXEMPTION FROM DEFAULT REMEDIES

Other problems related to the application of the Protocol concern the existence of priority among competing rights of States and creditors. As it is known, satellites carries a number if transponders through which different services may be offered to different users. What may happen in case a single user is in default and the creditor uses the remedies available under the Convention and the Protocol, and seizes control of that transponder or the entire satellites?

During the last meeting of the New Steering Committee on the Space Protocol, Germany has suggested that creditors should only exercise their default remedies if that exercise would not affect the use of other space assets physically or functionally linked to the secured space asset. This suggestion has been strongly opposed by the industry side. The sub-Committee will have to further analyze this issue.

Additionally, there are questions related to the possibility of creating an exemption from default remedies in case of public services. What will happen in case a creditor wants to seize a satellite which is offering public services, even of State interest? One suggestion would be that satellite services be continued irrespective of creditors' exercise of default remedies. On the other hand, creditors need protection of their investments. Therefore, a similar proposal is not likely to encounter their approval.

The relation between default remedies and public services needs to be further analyzed and clarified when drafting the new version of the Draft Space Protocol.

## CONCLUSION

The current deadlock in the negotiation of the Draft Space Protocol requires an analysis of the causes and reasons of such situation. The present paper has revealed that there are some problems of incompatibility between the Protocol and the space treaties which are undermining the success of the Protocol. This paper has proposed a series of proposals, such as the deletion of any reference to related rights and the insertion in the text of the Protocol of a clause regulating the relation between the launching State and the creditor taking control and possess of a space object, which may contribute to the success of the Protocol.

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[1] This particiaption in a conference has been sponsored by Leiden University Fund (LUF)/Van Beuningen.

[2] UNIDROIT is an independent intergovernmental organization whose purpose is to study needs and methods for modernizing, harmonizing and co-ordinating private and in particular commercial law as between States and groups of States. For more details see at: http://unidroit.org/dynasite.cfm?dsmid=84219

[3] See P.Larsen, "*Creditors' secured interests in satellites*", in Proceedings of the Thirty-Fourth Colloquium on the Law of Outer Space, (1991), p. 233.

[4] For the text of the Preliminary Draft Protocol on Matters Specific to Space Assets see at: http://www.unidroit.org/english/workprogramme/study072/spaceprotocol/main.htm.

[5] The text of the Convention on International Interests in Mobile Equipment has been adopted at Cape Town in 2001. For the text of the Convention see at: http://www.unidroit.org/english/conventions/mobile-equipment/main.htm.

[6] The Protocol to the Convention on International Interest in Mobile Equipment on Matters specific to Aircraft Equipment has been adopted at Cape Town in 2001. For the text of the Protocol see at: http://www.unidroit.org/english/conventions/mobile-equipment/main.htm#NR2. The text of Protocol to the Convention on International Interest in Mobile Equipment on Matters specific to Railway Rolling Stock has been approved in Luxembourg in 2007. For the text of the Protocol see at: http://www.unidroit.org/english/conventions/mobile-equipment/main.htm#NR3.

[7] As indicated in the main text, an international interest may be created by means of a security agreement, title reservation agreement or leasing agreement or sale. This characteristic of the Convention reflect reflects a functional approach to security which focuses on the effect of the transaction rather than on its form and which tries to avoid problems generated by different forms of security defined in different legal systems.

[8] The Convention's definition of the debtor's location is rather broad, including place of incorporation, registered office or statutory seat, centre of administration or its place of business (Art. 4 of the Convention)

[9] Currently, space law consists of five space law treaties, namely: the *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies* (1967), usually referred as "The Outer Space Treaty"; the *Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space* (1968), usually referred as the "Rescue Agreement"; the *Convnetion on International Liability for Damage Caused by Space Objects* (1972), usually referred as the "Liability Convention; the

*Convention on Registration of Objects Launched into Outer Space* (1975), best know as the "Registration Convnetion"; the *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* (1979), usually referred as the the "Moon Agreement". See the text of the Treaties at: http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html.

[10] See in this respect S. Ospina: "*The UNIDROIT registration of security interests and the Registration Convnetion: compatible-complementary, or contradictory?*, in Proceedings of the Forty-Sixth Colloquium on the Law of Outer Space, (2003), p. 464; P. Van Fenema, "*The UNIDROIT Space Protocol, the concept of launching State, space traffic management and the delimitation of outer space*", Air & Space Law, Vol. XVIII 4/5 (September 2003).

[11] *Ibidem* p. 469.

[12] See F. Tronchetti," *The non-appropriation principle under attack: using Article II of the Outer Space Treaty in its defence*", in Proceedings of the 50th Colloquium on the Law of Outer Space (2008), pp. 526; F. Tronchetti, "*The non-appropriation principle as a structural norm of international law: a new way of interpreting Article II of the Outer Space Treaty*", Air & Space Law, Issue 33, (June 2008), pp. 277-305.

[13] P. Larsen, "*UNIDROIT Space Protocol: Comments on the Relationship between the Protocol and Existing International Space Law*", in Proceedings of the Forty-Fourth Colloquium on the Law of Outer Space, (2001), p. 187; P. Larsen, "*Critical issues in the UNIDROIT Draft Space Protocol*", in Proceedings of the Forty-Fifth Colloquium on the Law of Outer Space, (2002), p. 2; P. Larsen, "*Space asset financing and trade issues*", in Proceedings of the Forty-Sixth Colloquium on the Law of Outer Space, (2003), p. 228; P. Larsen, "*Future Protocol on security interests in space assets*", in Journal of Air Law & Commerce (2002), p. 1072; O. Ribbelink, "*The Protocol on Matters specific to space assets*", in European Review of Private Law, (2004), p. 37.

[14] See, in this respect R. Lee, "*Effects of satellite ownership transfers on the liability of the launching States*", in Proceedings of the Forty-Third Colloquium on the Law of Outer Space, (2000), p. 48; M. Gerhard, "*Transfer of operation and control with respect to space objects – problems of responsibility and liability of States*", in ZLW 51, 4/2002.