Potential Uniform International Legal Framework for Regulation of Private Space Activities

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Abstract

Increasingly developing space activities affected by tendencies of globalization, commercialization and privatization have already caused various legal debates and might precondtition additional future challenges subject to Space Law regulation.

The aim of this paper is to propose a potential and most importantly adequate and uniform solution for regulation of private space activities in view of the abovementioned tendencies.

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Private International Space Law ("PISL"), defined as a set of substantive legal rules and rules of conflict of laws governing space-related property and personal non-property relations involving a “foreign element”, could provide such an adequate legal framework for commercial space activities as long as it is most effectively able to take account of both the private nature of the corresponding activities and the specific features of International Space Law and International Law on the whole.

The paper provides an overview of PISL as a new branch of law including its legal sources, principal institutions; evaluates perspectives of its development; as well as includes some specific conclusions related to formation of PISL reached by the author in her Ph. D. Thesis. In particular these conclusions concern:

The prevailing character of International Space Law rules and distinctive correlation of public and private legal aspects in commercial space activities regulation;

Interconnection between change of relations subject to PISL regulation and international legal effects for corresponding states;

Formulation of specific rules of conflict of laws applicable within the framework of PISL;

Tendency of parallel and in some cases “overdue” elaboration of national legislation for private space activities regulation.

The author believes that there is a need of a very strong and effective legal framework for turning space for human benefit and exploration, and presumes that formation of PISL could be a step forward on this way.

1. Actuality

Contemporary space activities directly affected by tendencies of globalization, commercialization and privatization\(^1\) have already caused various legal debates and might pre-condition additional future challenges subject to space law regulation.

United Nations (hereinafter “UN”) Treaties on outer space were adopted at the time when states were the only actors in this field and space activities were carried out mainly for strategic and scientific purposes. However space activities of non-governmental entities were not excluded from the scope of UN Treaties on outer space. According to Article VI of the Treaty on Principles Governing the Activity of States in the Exploration and Use of
Outer Space, Including the Moon and Other Celestial Bodies, 1967 (hereinafter “the Outer Space Treaty”) “the activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty”. It is envisaged in the same Article that States Parties shall bear international responsibility for all national activities in space, including the Moon and other celestial bodies (hereinafter “outer space”).

The importance of rules and principles of the existing Space Law cannot be denied but it should however be recognized that neither UN Treaties on outer space nor corresponding national legislation do provide (and according to their substance even do not have to provide) comprehensive regulation of increasingly developing commercial space activities in view of the abovementioned tendencies.

Many issues related to private space activities such as property rights, intellectual property rights, liability of non-governmental entities, insurance, legal status of space tourists and others require adequate regulations; and in the future with advances in space technology and emergence of new lines of corresponding activities number of such issues would only increase.

Each of the aforementioned specific issues requires a separate legal analysis and effective solution but not less important is trying to find an appropriate uniform international legal framework for regulation of various aspects of private space activities.

Finding of a comprehensive solution to legal problems caused by and related to participation of non-governmental entities and individuals in space activity seems to be a highly topical issue.

2. Private International Space Law

For several years international lawyers specializing in the field of International Space Law (hereinafter “ISL”) have been discussing the issue of formation of Private International Law.
Space Law ("PISL")\textsuperscript{3}. This discussion has been also supported by a number of states’ official delegations at the UN Committee on the Peaceful Uses of Outer Space ("COPUOS") and its Legal Subcommittee.

2.1. **Definition of PISL**

*PISL* could be defined as *a set of substantive legal rules and rules of conflict of laws governing space-related property and personal non-property relations involving a “foreign element”.*

As any other branch of law PISL is characterized by its specific *subject of legal regulation* comprising involving a “foreign element” space-related property and personal non-property relations of entities under Private International Law (states and international organizations, individuals and corporations).

*“Foreign element”* can be distinguished by subject in a relationship, subject-matter or juridical act on grounds of which legal relationship arises, changes or terminates.

To this subject following methods of legal regulations are applicable: substantive law method (direct regulation of relations), method of conflict of laws (referral to national law), as well as international and national methods of legal regulation.

Existence of these objective preconditions (specific subject and methods of legal regulation) allows raising the issue of formation of a new branch of law – PISL – that could be able to fill in the legal “vacuum” in regulation of commercial space activities.

2.2. **Legal Sources of PISL**

As any other branch of law PISL shall have its own legal sources. A general brief analysis of the status of potential and existing legal sources both at international and national levels is as follows:

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\textsuperscript{3} See: - Международное космическое право/ Отв. редакторы проф. Жуков Г. П. и проф. Колосов Ю. М. - «Международные отношения». М., 1999 г., С. 133;
- Кузнецов О. Международное космическое право и международное частное право/Новое в космическом праве (на пути к международному частному космическому праву)/ Отв. редактор проф. Верещагин В. С. М., 1990. С. 13;
- Ж. Монсержат Филь Правовые аспекты коммерческой деятельности в космосе/ Статус, применение и прогрессивное развитие международного и национального космического права. Материалы Симпозиума (Практикума) ООН-Украина по космическому праву. 6-9 ноября 2006 г. Киев, Украина. Актика-Н, 2007. С. 201;
2.2.1 The Cape Town Convention on International Interests in Mobile Equipment and Preliminary Draft Protocol on Matters specific to Space Assets

One of the forms of commercial space activity is transfer of rights on mobile equipment. On this issue the Convention on International Interests in Mobile Equipment (hereinafter “Convention”) was prepared in frames of the International Institute for the Unification of Private Law (“UNIDROIT”) and opened to signature at the diplomatic Conference, held in Cape Town, under the joint auspices of UNIDROIT and International Civil Aviation Organization (“ICAO”), at the invitation of the Government of South Africa, on 16 November 2006. The Convention entered into force on 1 March 20064.

The aim of the Convention is to increase the efficiency of financing high value mobile equipment (e.g. aircrafts, space objects, railway rolling stock, etc.), because such equipment moves from jurisdiction to jurisdiction, and because not all jurisdictions provide equivalent recognition of creditor’s rights, creditors face higher risks and this increases the cost of obtaining credit.

The Convention establishes a sound, internationally-applicable legal regime for security, title-retention and leasing interests. This will reduce the risks faced by creditors and thereby reduce the costs of financing high-value mobile equipment. Financiers will be able to assure themselves that their proprietary interests in a financed asset are superior to all potential competing claims against that asset, and upon default will be able to promptly realize the value of that asset. In particular, the Convention provides for remedies in Contracting State jurisdictions to be capable of expeditious enforcement, and creates a regime for the priority of creditors’ interests to be determined by reference to an electronic, notice-based International Register, with priority to be established on a “first-in-time” basis.5

In course of work on the draft Convention it was decided that the Convention would contain general rules applicable to all categories of high value mobile equipment and separate protocols would contain specific rules applicable to each particular category of mobile equipment and associated rights. In accordance with Article VI of the Convention, the Convention and the corresponding Protocol shall be read and interpreted together as a single

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instrument (1); and, to the extent of any inconsistency between the Convention and the Protocol, the Protocol shall prevail (2).

The first developed protocol that was opened to signature and entered into force on the same date with the Convention is the Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Aircraft Equipment. The Luxembourg Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Railway Rolling Stock was opened to signature at the diplomatic Conference held in Luxembourg on 23 February 2007 and has not yet entered into force.

Another Protocol dealing with application of the Convention to space assets is under development. The preliminary Draft Protocol on Matters specific to Space Assets (hereinafter “draft Space Assets Protocol”) is under consideration of the UNIDROIT Committee of the governmental experts. Informal working groups meet in the interim, as well as consultations with representatives of the international commercial space, financial and insurance communities are held.

UN COPUOS Legal Subcommittee considered examination of the draft Space Assets Protocol for the first time as item for discussion at its fortieth session in 2001. This work continues and this item still remains on the agenda.

Purpose of the Space Assets Protocol would be (1) to establish an international register of secured interests in space assets, giving notice to third parties and thereby establishing priorities, (2) to provide remedies against default and insolvency, (3) to meet the needs of the space industry, (4) to encourage creditors to finance acquisition of space assets, and (5) generally to facilitate financing of space assets.

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8 UN Document: A/AC.105/942 (Page 17).
Existing instruments and principles of Private International Law are applicable to commercial space activities involving a “foreign element”, however they do not consider the specificity of this kind of activities, which although are commercial at the core, still are characterized by specific features, determined, in particular, by provisions of Articles VI and VII\textsuperscript{10} of the Outer Space Treaty. There is a strong need of specific private international legal instruments for governing space-related private relations involving a “foreign element”.

Although there are various opinions on the potential economic impact of the draft Space Assets Protocol, in case of its entry into force, together with the Convention as a single instrument, it may become first specific private international legal source of PISL and could serve as first example of instrument of this kind taking into account both the private nature of regulated activities and specific features of ISL.

As Ms. L. Ravillon noted, it is important to underline the importance of this instrument of substantive law, as the first international private law instrument in the space field\textsuperscript{11}. Moreover the system of International Register, envisaged by this instrument, may become \textit{third system of registration} in the field of space activity regulation (taking into account the two existing systems: under Convention on Registration of Objects Launched into Outer Space, 1975 (hereinafter “Registration Convention”) and the other one within the frames of the International Telecommunications Union (ITU).

The view was expressed at the forty ninth session of the UN COPUOS Legal Subcommittee that the future Space Assets Protocol was intended not only to regulate the financing of space assets but also to bring space law in line with developing trends in space activities without undermining the current legal regime governing outer space\textsuperscript{12}.

Adoption of the Convention and continuing work on the draft Space Assets Protocol could be considered as one of the first efforts at the international level to modernize space law to adapt it to increasingly developing commercial space activities, on one hand, and as one of the important preconditions for formation of PISL, on the other hand.

\textsuperscript{10} Article VII of the Outer Space Treaty provides that States are “internationally liable for damage to another State <...> or its natural and juridical persons”, if such damage is caused by their space objects.


\textsuperscript{12} UN Document : A/AC.105/942 (Page 16).
2.2.2. National Space Legislation

National space legislation is considered as currently the most widespread legal source of PISL. As Professor Frans G. Von Der Dunk notes: “International Space Law itself then firstly calls for the establishment of national space legislation; secondly, it provides for the outlines of such legislation as to its scope; and thirdly it provides for a few broad rules as to its contents. In short, a State will have to exercise any available jurisdiction primarily vis-à-vis those particular categories of private activities in respect of which it can be held accountable internationally”13. “International accountability” of states is predetermined by Articles VI and VII of the Outer Space Treaty.

States adopted and will continue to adopt national legislation regulating primarily issues of licensing, insurance and export control in this field. Corresponding national regulatory frameworks represent different legal systems with either unified acts (e.g. in Norway) or a combination of national legal instruments (e.g. in the Russian Federation). National space legislation shall be in full conformity with obligations of states under International Space Law (ISL) and International Law on the whole. A state shall provide fulfillment of undertaken international obligations on the whole national territory and by all entities under national jurisdiction14.

This issue has been profoundly analyzed by honorable specialists in the field of space law. Without getting into details, it seems important to outline the main conclusion: analysis of practical activity of subjects of PISL (individuals and corporations, states and international organizations) on sale and exchange of space-related goods, technologies and services allows stating the tendency of parallel and in some cases “overdue” elaboration of national legislation for private space activities regulation.

It is to be noted that well timed elaboration of adequate legal basis is certainly necessary for stable development, in particular, of this type of activity.

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2.2.3. **Agreement on the International Space Station**

The legal framework regulating activity related to the International Space Station (“ISS”) is built on the following three levels:

1. *The International Space Station Intergovernmental Agreement* (hereinafter “IGA”) signed on 29 January 1998 by the primary nations involved in the ISS project (the United States of America, Canada, Japan, the Russian Federation, and 10 Member States of the European Space Agency (Belgium, Denmark, France, Germany, Italy, The Netherlands, Norway, Spain, Sweden and Switzerland).

   In accordance with Article 1 of IGA, this international treaty establishes “a long term international cooperative framework on the basis of genuine partnership, for the detailed design, development, operation, and utilization of a permanently inhabited civil Space Station for peaceful purposes, in accordance with international law”.

   It is important to note that the IGA regulates issues of diverse legal nature, such as e.g. Registration, Jurisdiction and Control (Article 5), Cross-Waiver of Liability (Article 16), Customs and Immigration (Article 18), Intellectual Property (Article 21), Criminal Jurisdiction (Article 22).

2. *Four Memoranda of Understanding* (MoUs) between the National Aeronautics and Space Administration (NASA) and each co-operating Space Agency: European Space Agency (ESA), Canadian Space Agency (CSA), Russian Federal Space Agency (Roscosmos), and Japan Aerospace Exploration Agency (JAXA). These MOUs regulate principally technical issues and describe in details the roles and responsibilities of the agencies in the design, development, operation, and utilization of the ISS.

3. *Code of Conduct for International Space Station Crews* approved on 15 September 2000 by the Multilateral Coordination Board, the highest-level cooperative body established by the MOUs. This document contains a set of standards (rights and obligations) agreed by all Partners to govern the conduct of ISS crew members, starting with the first expedition crew launched from Baykonur in Kazakhstan on 31 October 2000.

   Documents of all of the abovementioned three levels of legal obligations have dual character and could serve as an example of comprehensive solution of legal problems related to regulation of space activities: on one hand – they contain direct reference to provisions of the UN Treaties on outer space, on the other hand – various private law relations involving a “foreign element” are regulated under these documents.
This system shows how within the frames of international space projects are actually regulated, in particular, involving a “foreign element” space-related property and personal non-property relations. Some of the time-proved corresponding provisions may be taken into account in case of future elaboration of necessary international legal framework.

2.2.4. Space Law Cases and Arbitration Practice

With development, relevant court and arbitration practices might become another widespread legal source of PISL. At present, when a relevant case is considered by court, practice on analogous in substance cases is taken into account. In due course, as corresponding court and arbitration practices develop, specific principles and doctrines, applicable for space law cases consideration, might be formulated.

2.3. Subjects of PISL

Individuals involved in commercial space activities and incorporated persons, as well as states and international organizations are considered as subjects of PISL.

Relations of subjects of PISL are predetermined by provisions of articles VI and VII of the Outer Space Treaty. In their activity these entities are obliged to comply with relevant international and national law provisions.

In view of increase in the number of private actors carrying out space activity, topics of special interest is the issue of application of the concept of the “launching State”. The term “launching State” means: a State which launches or procures the launching of a space object; as well as the State from whose territory or facility a space object is launched (the term “launching” includes attempted launching). These four categories are mentioned in Article VII of the Outer Space Treaty (although the term “launching State” itself is not mentioned), in Article I of the “Liability Convention”, and Article I of the Registration Convention.

Recognition of a State as “launching State” involves certain legal implications. A launching State shall register a space object in accordance with the Registration Convention; and the Liability Convention identifies those States which may be liable for damage caused by a space object and which would have to pay compensation in such a case.

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15 See, e.g.: Pigott v. Boeing Company (Supreme Court of Mississippi, 1970 Miss. 240 So.2d 63); Smith v. United States (Supreme Court, 1989).
With adoption of the Resolution 59/115 “Application of the concept of the “launching State” by the UN General Assembly on 10 December 2004, attention of the international community was turned to the main legal problems resulting from participation of subjects of PISL in space activity, as well as main directions for their solution were proposed.

These recommendations to States include, inter alia: “enacting and implementing national laws authorizing and providing for continuing supervision of the activities in outer space of non-governmental entities under their jurisdiction”; “conclusion of agreements in accordance with the Liability Convention with respect to joint launches or cooperation programmes”; and submitting of information to the UN COPUOS “on a voluntary basis on their current practices regarding on-orbit transfer of ownership of space objects”.

It appears that commercialization of space activity has caused to some extent “extension” of the concept of the “launching State”.

In view of the subject under consideration, if not analyzed, at least the following issues should be mentioned:

Tendencies of commercialization and privatization have influenced the legal status of major International Satellite Communications Organizations. Most of them were privatized\(^\text{16}\).

Development of space tourism determines various legal problems such as applicability of provisions of UN Treaties on outer space to space tourists\(^\text{17}\), responsibility, insurance, certification, civil and penal jurisdiction, export of information, reexport of equipment etc.

Legal problems related not directly to tourists but to manned space flights on the whole were already considered by lawyers in the early 90s of the past century\(^\text{18}\).

\(^{16}\) See: Жуков Г.П. 40 лет Договору о принципах деятельности государств по исследованию и использованию космического пространства, включая Луну и другие небесные тела. В кн.: Современные проблемы международного космического права. Под ред. Г.П. Жукова, А.Я. Капустинна. М. 2008. С. 87.

On the whole it is to be noted that development of commercial space activities determined appearance of new subjects. Legal status of these subjects might require regulation within the framework of a new branch of law – PISL. Relevant legal solutions shall be found both at national and international levels.

3. Specific Conclusions

Some brief conclusions on specific issues related to formation of PISL\textsuperscript{19} are as follows:

3.1. Prevailing Character of ISL and International Law on the Whole

Both ISL and PISL are aimed at regulation of connected with space activity relations. However corresponding subject and methods of legal regulation, as well as subjects of ISL and PISL, are not identical.

On the basis of analysis of correlation of ISL and PISL a conclusion is made on the prevailing character of ISL and International Law on the whole. Thus, in particular, in accordance with Article XXXIV of the draft Space Assets Protocol\textsuperscript{20} (Relationship with the United Nations Outer Space Treaties and instruments of the International Telecommunication Union): “The Convention as applied to space assets does not affect State Party rights and obligations under the existing United Nations Outer Space Treaties or instruments of the International Telecommunication Union”.

A potential situation should be considered when a state having become Party to the Convention and the Space Assets Protocol is not participating in any of the UN Treaties on outer space. Although in this case international custom and UN General Assembly Resolutions remain applicable, it is still desirable that compliance with ISL would be assured on a treaty basis. In this respect a recommendation could be given on including in the draft Space

\textsuperscript{19} For a detailed analysis of all of the raised issues please see the aforementioned author’s PhD thesis.

\textsuperscript{20} References are made to the text of the revised preliminary draft Space Assets Protocol as it emerged from the fourth session of the UNIDROIT Committee of governmental experts. See: UNIDROIT 2010 – C.G.E./Space Pr./4/Report/Appendix VIII.
Assets Protocol of provision stating that the necessary condition of participation in this Protocol is participation of corresponding State in the Outer Space Treaty of 1967. It appears that being Party to the Outer Space Treaty is a necessary and sufficient condition for becoming a Party to a PISL instrument.

3.2. Distinctive Correlation of Public and Private Law Matters

On the basis of overview and analysis of systems of export control as related to space activity at national and international levels the following conclusion is made: commercial space activity, pursuant to the specificity of corresponding relations, requires distinct legal regulation. Although this type of activity is commercial in substance, stricter legal regulation as compared to regulation of other types of commercial activity is unavoidable, as long as it affects interests of not merely involved private actors, but also those of the whole international community. There will always be a distinctive correlation of public and private legal aspects in commercial space activities’ regulation, predetermined, in particular, by Articles VI and VII of the Outer Space Treaty.

3.3. Interconnection between Change of Relations under PISL and International Legal Effects for States

Analysis of legal problems arising in connection with on-orbit transfer of ownership of space objects, allows determining a certain interconnection between change of relations subject to PISL regulation and international legal effects for corresponding states. Obviously this reflects specific features of space activities, and, correspondingly, testifies to the necessity of distinctive legal regulation.

3.4 Formulation of Specific Rules of Conflict of Laws Applicable within the Framework of PISL

In accordance with Article VIII of the Outer Space Treaty: “Ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth”. This provision is the international legal basis for enforcement of relevant rights by different owners of space objects.

The expression “ownership of objects launched in outer space <…> is not affected” might assist in solution of matters of conflict of laws while determining these rights and

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Such as reregistration, jurisdiction, control, liability and other related issues.
their specific content under the law of place of origin (accrual of the right) (e.g., in case of international on-orbit sale of space hardware, when traditional connecting factor rule of the place of settlement of the transaction cannot be applied, and connecting factor rule of the seller’s law does not resolve all of the issues). The following conclusion is reached accordingly: Interpretation of norms of ISL could lead to formulation of specific rules of conflict of laws applicable within the framework of PISL.

4. General Conclusions

It is an admitted fact that there should be further progressive development of Space Law.

As Professor Kopal notes, “it is evident from international space treaties and judicial decisions, and recognized by specialized writers, that the present International Space Law cannot be viewed as a complete system.”

As it was mentioned, increasingly developing commercial space activities have already caused various legal problems and might pre-condition additional future challenges subject to Space Law regulation.

Therefore there is a need to create a very strong, effective, adequate, comprehensive and uniform legal framework for turning space for human benefit and providing stable development of this type of activities.

Formation of PISL could be a step forward on this way as long as it is most effectively able to take account of both the private nature of commercial space activities and the specific features of ISL and International Law on the whole.

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