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POTENTIAL UNIFORM INTERNATIONAL LEGAL FRAMEWORK FOR REGULATION OF PRIVATE SPACE ACTIVITIES

Abstract

Increasingly developing space activities affected by tendencies of globalization, commercialization and privatization have already caused various legal debates and might precondition 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.

International space private law ("ISPL") defined as a body of substantive and conflict rules regulating connected with space activity property and personal non-property relations complicated with "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 a general analysis of ISPL 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 ISPL 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 ISPL regulation and international legal effects for corresponding states;

Formulation of specific conflict rules applicable within the framework of ISPL;

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 ISPL could be a step forward on this way.

Full text

I. ACTUALITY

Contemporary space activities directly affected by tendencies of globalization, commercialization and privatization have already caused various legal debates and might precondition 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 regulation; 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 specific issue deserves 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[1].

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.

II. INTERNATIONAL SPACE PRIVATE LAW

For several years international lawyers specializing in the field of international space law (hereinafter "ISL") have been discussing the issue of formation of international space private law (hereinafter "ISPL")[2]. This discussion has been also supported by a number of states' official delegations at UN Committee on the Peaceful Uses of Outer Space (hereinafter "COPUOS") and its Legal Subcommittee.

II.I. Definition of ISPL

ISPL could be defined as *a body of substantive and conflict rules regulating connected with space activity property and personal non-property relations complicated with "foreign element".*

As any other branch of law ISPL is characterized by its specific ***subject of legal regulation*** comprising *complicated with "foreign element" connected with space activity property and personal non-property*

relations of entities under international private 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 of legal regulation applicable are the following ***methods of legal regulation***: 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 - ISPL - that could be able to fill in the legal "vacuum" in regulation of commercial space activities.

II.II. Legal Sources of ISPL

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

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 (hereinafter "UNIDOIT") and opened to signature at the diplomatic Conference, held in Cape Town, under the joint auspices of UNIDROIT and International Civil Aviation Organization (hereinafter "ICAO"), at the invitation of the Government of South Africa, on 16 November 2006. The Convention entered into force on 1 March 2006[3].

The aim of the Convention is to increase the efficiency of financing high value mobile equipment (e.g. aircraft objects, 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[4].

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 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[5]. 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[6].

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 (the fourth session was held in Rome from 3 to 7 May 2010). At its 89th session, held in Rome from 10 to 12 May 2010, the UNIDROIT Governing Council authorised the Secretariat to convene a fifth session of the Committee of governmental experts, which will be held in Rome from 21 to 25 February 2011. Informal working groups will meet in the interim, as well as consultations with representatives of the international commercial space, financial and insurance communities will be 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 it was agreed at the forty ninth session that this item should remain on the agenda[7].

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[8].

Although there are various opinions on the potential economic impact of the Space Assets Protocol, in case of its entry into force, together with the Convention as a single instrument, it may become *first specific international legal source of ISPL.*

Moreover the system of International Register, envisaged by this instrument, may become *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.

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[9].

Existing instruments and principles of private international law are applicable to commercial space activities complicated with "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 the provisions of Articles VI and VII[10] of the Outer Space Treaty.

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[11].

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 important preconditions for formation of ISPL, on the other hand.

National Space Legislation

National space legislation is considered as currently the most common legal source of ISPL.

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"[12].

"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 or a combination of national legal instruments. National space legislation shall be in full conformity with obligations of states under ISL and international law on the whole.

This issue has been profoundly analyzed by honorable specialists in the field of space law. Without getting into details, because of the short nature of this paper, it seems important to outline the main conclusion: analysis of practical activity of subjects of ISPL (individuals and corporations, states and international organizations) on sale and exchange of space related goods, technologies and services allows to state 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 of this type of activity.

Agreement on the International Space Station

The legal framework regulating activity related to the International Space Station (hereinafter "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* (hereinafter "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 complex solution of relevant legal problems*: on one hand - they contain direct reference to provisions of the UN Treaties on outer space, on the other hand - various private law relations complicated with "foreign element" are regulated in these documents.

This system shows how within the frames of international space projects are actually regulated, in particular, complicated with "foreign element" connected with space activity 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.

Space Law Cases and Arbitration Practice

With development, relevant court and arbitration practices might become another widespread legal source of ISPL.

At present, when a relevant case is considered by court, practice on analogous in substance cases is taken into account[13].

In due course, as corresponding court and arbitration practices develop, *specific principles and doctrines, applicable for space law cases consideration, might be formulated.*

II.III. Subjects of ISPL

Involved in commercial space activities individuals and incorporated persons, as well as states and international organizations are considered as subjects of ISPL.

Relations of subjects of ISPL 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 a number of private actors carrying out space activity, 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 Convention on International Liability for Damage Caused by Space Objects, 1972(hereinafter "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.

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 ISPL 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 should be mentioned also the following issues:

Tendencies of commercialization and privatization have affected the legal status of major International Satellite Communications Organizations.

Another issue of interest is the legal status of space tourists. Legal problems related not directly to tourist but to manned space flights on the whole were already considered by lawyers in the early 90s of the past century[14]. Till now only the United States have adopted relevant national legislation: Commercial Space Launch Amendments Act, 2004, and Federal Aviation Administration Human Space Flight Requirements for Crew and Space Flight Participants, 2007. Space tourists also fall under the category of "Space Flight Participants".

III. SPECIFIC CONCLUSIONS

Some brief conclusions on specific issues related to formation of ISPL[15] are as follows:

III.I. Prevailing Character of ISL and international law on the whole.

Both ISL and ISPL 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 ISPL, are not identical.

On the basis of analysis of correlation of ISL and ISPL 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[16] (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 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 an ISPL instrument.*

III.II. 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 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.

III.III. Interconnection Between Change of Relations under ISPL and International Legal Effects for States.

Analysis of legal problems arising in connection with on-orbit transfer of ownership of space objects[17], allows determining a *certain interconnection between change of relations subject to ISPL 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.

III.IV. Formulation of Specific Conflict Rules of ISPL.

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 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 conflict rules applicable within the framework of ISPL.*

IV. 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.[18]"

As it was mentioned, increasingly developing commercial space activities have already caused various legal problems and might precondition 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 *ISPL* 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.*

[1] For a detailed analysis of legal regulation of commercial use of outer space (I) (licensing and insurance of space activities, property rights and intellectual property rights, liability of states and non-governmental entities in space law and export control in the field of space activities); and comprehensive research of the issue of formation of ISPL (II) (definition, subject and method of legal regulation, legal sources of ISPL, legal status of subjects in ISPL and correlation of international space law and ISPL) please see author's PhD Thesis:

Юзбашян М. Р. Международно-правовые основы решения экономических проблем использования космоса. Диссертация на соискание ученой степени кандидата юридических наук: 12.00.10/МГИМО – Москва, 2009.

[2] See.: - Международное космическое право/ Отв. редакторы проф. Жуков Г. П. и проф. Колосов Ю. М.. - «Международные отношения». – М.,1999 г., С.133;

- Кунц О. Международное космическое право и международное частное право/Новое в космическом праве (на пути к международному частному космическому праву)// Отв. редактор проф. Верещетин В. С. – М., 1990. – С.13;

- Ж. Монсеррат Фильо 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;

[3] For the Status of the Cape Town Convention see:
http://www.unidroit.org/english/implement/i-2001-convention.pdf

[4]International Interests in Mobile Equipment – Study LXXII/ Convention: Objectives and Key Features:
http://www.unidroit.org/english/workprogramme/study072/main.htm

[5] For the Status of the he Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Aircraft Equipment see:
http://www.unidroit.org/english/implement/i-2001-aircraftprotocol.pdf

[6] For the Status of the Luxembourg Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Railway Rolling Stock see:
http://www.unidroit.org/english/implement/i-2007-railprotocol.pdf

[7] UN Document : A/AC.105/942 (Page 17).

[8] See: Paul B. Larsen, IISL Observer. Brief Summary of the Fourth Meeting of the UNIDOIT Committee of Governmental Experts for the Preparation of the Protocol to the Cape Town Convention on International Interests in Mobile Equipment on Matters specific to Space Assets (Rome, May 3-7, 2010). P. 1.

[9] UNIDROIT Document : UNIDROIT 2010 - C.G.E./Space Pr./4/W.P. 4 rev. (P. 35)

[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.

[11] UN Document : A/AC.105/942 (Page 16).

[12] Prof. Frans G. Von der Dunk. Current and Future Development of National Space Law and Policy//Proceedings of the United Nations/Brazil Workshop on Space Law: Disseminating and Developing International and National Space Law: The Latin America and Caribbean Perspective. - ST/Space/28 - United Nations, 2005. P.35.

[13] See, e.g.:

Pigott v. Boeing Company (Supreme Court of Mississippi, 1970 Miss. 240 So.2d 63);

Smith v. United States (Supreme Court, 1989).

[14] See draft Convention on Manned Space Flights:

Верещетин В. С. Правовое регулирование полетов человека в космос (опыт международного сотрудничества ученых)/ В. С. Верещетин, Э. Г. Жукова, Е. П. Каменецкая// Советский журнал международного права. 1991. № 1. – С.76-81.

[15] For a detailed analysis of all of the raised issues please see the aforementioned author's PhD thesis.

[16] References are made to the text of 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.

[17] Such as reregistration, jurisdiction, control, liability and other related issues.

[18] Prof. Vladimir Kopal. Comments and Remarks to "Current and Future Development of the International Space Law" by Prof. Stephan Hobe// Proceedings of the United Nations/Brazil Workshop on Space Law: Disseminating and Developing International and National Space Law: The Latin America and Caribbean Perspective. - ST/Space/28 - United Nations, 2005. P.25.