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OUTER SPACE (COSMIC) PRIVATE LAW

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Myklush M. Outer space (cosmic) private law.
The article presents the relevant results of an analysis of the process of regulating private space activities. At the same time, the separate focus is on the development of space law and the main problems that currently exist in space law, including those related to the confrontation between public space law and private space law, for example: regulation of space traffic; determination of ownership of objects obtained as a result of space activities; mining and other aspects of commercialization of space activities. Additionally, a list of the main legal tasks in private space activities that require an early solution is identified, and the steps that have already been taken in this direction are described, namely, new variants of terminology, interpretation, and classification of objects and subjects of space activities, space law, and space legal relations as well as a new theory for determining the legal status of outer space are proposed. In the final analysis, it was concluded that it is necessary to continue research in further formation and improvement of the elements, interpretations, and structure of Space Private Law.

To this end, the author proposed an option for further scientific research on the formation of the structure of Space Private Law based on the establishment and definition of the basic principles, concepts, and elements of such law. At the same time, the author identified the main goals, objectives, object, and subject of such research, and also, preliminary, determined the research methodology that is vital to obtain the most effective scientific results.

According to the author, the results of the study on the formation of the structure of Space Private Law will be base for future foundations for regulating private space activities and preventing many legal conflicts.

Key words: space, space law, space activity, space private law.

Миклуш М.І. Космічне приватне право.
У цій статті викладено результати аналізу процесу регулювання приватної космічної діяльності станом на сьогоднішній день. При цьому звернуто увагу на розвиток космічного права та на основні проблеми, які існують на даний момент у космічному праві, у тому числі, пов'язані з протистоянням космічного публічного права та космічного приватного права, наприклад: регулювання космічного руху; визначення права власності на об'єкти, одержані в результаті космічної діяльності; видобуток Окрім цього, визначено перелік основних правових завдань у приватній космічній діяльності, які вимагають якнайшвидшого вирішення, та описані кроки, які вже зроблені в цьому напрямку, а саме, запропоновано нові варіанти термінології, інтерпретації та класифікації об'єктів та суб'єктів космічної діяльності, космічного права та космічних правовідносин, а також нова теорія визначення правового статусу космічного простору. Зрештою, зроблено висновок про необхідність продовження дослідження у сфері подальшого формування та вдосконалення елементів, інтерпретацій та структури Космічного приватного права.

З цією метою автором запропоновано варіант подальшого наукового дослідження щодо формування структури Космічного приватного права на основі встановлення та визначення основних принципів, понять та елементів такого права. При цьому автором було виділено основні цілі, завдання, об'єкт та предмет такого дослідження, а також, попередньо, визначено методологію дослідження, яка допоможе отримати найбільш ефективні наукові результати.

На думку автора, результати дослідження щодо формування структури Космічного приватного права допоможуть надалі закласти основи для регулювання приватної космічної діяльності та уникнути безлічі правових конфліктів.

Ключові слова: космос, космічне право, космічна діяльність, космічне приватне право.

1. Introduction

1.1. Problem Statement

Compared to the 20th century, in the 21st century space activities shifted to a new technological and political level of development. The orbits of the Earth are massively occupied by artificial satellites of states and private companies, research stations are sent to the Moon and Mars, and plans are being made for the exploration of asteroids and the colonization of the Moon and Mars.

All this may cause numerous conflicts and disputes as well as confrontations between public and private companies and, ultimately, global violations of human rights.

In this regard, we can conclude that the regulation of relations in outer space and on celestial bodies is one of the most important tasks of space activity since the space future of all mankind depends on this process.

1.2. The status of the issue

At the same time, it should be noted that today many scientists, diplomats, and honored lawyers have studied the process of regulating space activities.

However, the majority of them mainly provided deep analysis only of global international documents on the regulation of space activities, such as international treaties or the UN conventions. Concurrently, other international documents, such as Resolutions and Declarations adopted by the United Nations General Assembly (the UN GA or the UN General Assembly), were subjected to only superficial analysis concerning their insignificance. In turn, it was precisely this position that resulted in the emergence of a "patchwork" and "leaky" quilt, which today consists of the so-called Space Law, where most of the processes have remained unsettled or are irresponsibly violated.

In addition, it is necessary to pay attention to the fact that, in general, scientists considered the process of regulation of space law only from the states or international organizations perspectives, bypassing the point of view of such participants in space activities as people, non-governmental, and commercial organizations. As a result, the relevant studies turned out to be one-sided and missing other important elements of the process of regulation of space activities.

1.3. The article aims to analyze the state of Outer space private law.

2. The basic material

It can be conditionally assumed that the process of the emergence of Space Law began back in 1932, when Vladimir Mandel published his research on the topic of Space Law [22, c. 14], and continued in 1953, when the doctoral thesis of Welf Heinrich Prince of Hannover, on "Luftrecht und Weltraum" (Air law and Outer Space) written under the direction of Prof. Alex Meyer was published [6, c. 16].

In turn, the international community made the first official attempts in this direction in 1958 after the UN General Assembly adopted Resolution No. 1348 (XIII) "Question of the peaceful use of outer space" [32].

Following the adoption of the Declaration of Legal Principles (December 13, 1963), indeed, it can be said that at the end of 1963, the process of formation of the system of Space Public Law began, as was concluded in the author`s study "Space Law, Subjects and Jurisdictions: pre-1963 period" [14, c. 576].

However, this process remains incomplete. Much debate on this topic has given rise to many theories about the further development of space relationships.

In the process of developing space activities, new theories were created and new documents were adopted to regulate it, which were most often contradictory and layered like a "badly prepared pie". The reason for this was also that at the initial stage of development, the subject and process of regulation remained unclear. Neither the expected subject composition of participants in space activities nor their jurisdiction nor the circumstances that need to be regulated were determined.

Due to these circumstances, there were many scientific and diplomatic disputes even on the topic of whether all adopted international documents on the regulation of space activities can be considered Space Law or whether only a part of such documents belongs to this sphere of law. At the same time, when adopting new documents in this field, participants in international relations did not emend and perform relevant explanations on this issue but created new additional provisions that had to be guided

by taking into account previously defined provisions. The net result is that such circumstances led to the emergence of numerous contradictions, misunderstandings, and violations of the rules of space activities.

We can conclude that international law in its present form cannot solve current problems in regulating space activities.

At the same time, despite the above problems, already at the initial stage, states made attempts to regulate the activities of private companies and other non-governmental entities, as discussed in the author`s study "Regulation of space activities during the 1958-1963 period" [13, c. 590]. Thus, as early as in paragraph 5 of the Declaration of Legal Principles (December 13, 1963) it was stated, "*The activities of non-governmental entities in outer space shall require authorization and continuing supervision by the State concerned*" [33].

However, the question of state jurisdiction extension in terms of regulating outer space private activities remains unresolved.

For instance, the author`s study "New insights into space activities regulation: *ab origine* to contemporary" [15, c. 92-93] presented the conclusion that outside the air-political space, states cannot apply national legislation even concerning private entities under their national jurisdiction. At the same time, International Space Public Law can be applied by states in Space only in relations between states without the possibility of the relevant application to private entities [15, c. 93-94].

The mentioned issue is also justified by the Principle of Free Space, which was formed in the international community by the end of 1963 [15, c. 94],

However, there are other opinions on this topic, similar to the ones outlined by Dempsey P.S. in his work "National Laws Governing Commercial Space Activities: Legislation, Regulation & Enforcement" [8], Johnson, C. D. in his work "The Texas space flight liability act and efficient regulation for the private commercial space flight era" [10], Masson-Zwaan T. and Sundahl M. J. in their work "National and international norms towards the governance of commercial space resource activity" [17].

At the same time, due to the rapid development of technology, scientists from different countries have raised many questions about the problems of regulating private scientific and commercial space activities:

– commercial use of outer space [23; 3; 2; 30];
– commercial use of international space stations [5; 21; 29];
– regulation of space traffic [11];
– regulation of the operation of commercial platforms for launching objects into space [24];
– liability, disputes, and insurance in space activities [18; 19; 36];
– commercial mining [16; 25; 26; 31];
– space tourism [9; 20; 28; 35];
– a form of commercial contract [1];
– ownership of objects obtained as a result of space activities, investment in space activities, participation of private companies in the militarization of space and many other important challenges of commercialization of space activities [4; 27; 12; 34].

To date, most of the discussed issues have remained unresolved, and scientific works on these topics are applied selectively and only in certain legal relations.

At the same time, sporadic and discrete attempts to meet individual challenges in the field of legal regulation of outer space private activities, without a systematic approach to the issue, resemble a process of "patching holes" that is virtually doomed to failure, since the general principles and all elements of such regulation are not considered.

Thus, we can infer the existence of objective preconditions for the formation of a new independent, non-public, and non-national system of Outer Space Law regulating private space activities. The author has repeatedly underlined the mentioned issues in the research "New insights into space activities regulation: *ab origine* to contemporary" [15, c. 84-85] and "Space Law, Subjects and Jurisdictions: pre-1963 period" [14, c. 576].

Moreover, the mentioned studies suggested that Space Law regulating private space activities can develop in at least two directions: Cosmic (Outer Space) Law of Principles and Cosmic (Outer Space) Private Law.

At the same time, ideas about the possibility of developing rules of voluntary execution, similar to the ideas about creating a Cosmic Law of Principles, were previously expressed by Chrysaki M. in the

work "The Sustainable Commercialization of Space: The Case for a Voluntary Code of Conduct for the Space Industry" [7].

In turn, the Cosmic (Outer Space) Private Law can conditionally be considered a system of law, essentially opposite to the Cosmic Law of Principles, since it assumes the possibility of the participant in legal relations refusing to voluntarily perform and bear responsibility for the relevant activities (that is, there is an element of distrust among participants in space activities).

For this reason, in the study "New insights into space activities regulation: *ab origine* to contemporary" the authors developed the following conditional definition of the concept of Outer Space Private Law [15, c. 84-85]:

Outer Space Private Law (or Cosmic Private Law) *is a system of permanent norms (rules of behavior) that are formed, controlled, and enforced by non-public subjects of space activities (organizations and/or individuals unable or unwilling to voluntarily comply with equitable principles) within the society or communities they created, and which regulate the behavior and relationships of such subjects in Cosmos*.

In a sense, Outer Space Private Law can be compared to the INCOTERMS (enforcement of which is carried out by arbitration courts and Chambers of Commerce and Industry) but only on a larger scale and in a different environment of the application.

Accordingly, there is a high probability that the development and control of the implementation of Outer Space Private Law would also be carried out by similar bodies and organizations, for example, Cosmic Arbitration Courts and Cosmic Chambers.

In addition, the above study proposed new options for the terminology, interpretation, and classification of objects and subjects of space activities, space law, and space legal relations as well as a new theory of determining the legal status of outer space "*Res Nullius Civitatis"* [15, c. 86–88, 92].

However, all these proposals for terminology, interpretation, and formation of Cosmic (Outer Space) Private Law are only a preliminary design for the future structure of Cosmic (Outer Space) Private Law.

3. Conclusion

Taking into account the above results, the author considers it necessary to continue research in the field of further formation and improvement of the elements, interpretations, and structure of Cosmic (Outer Space) Private Law.

In turn, this will make it possible to propose new forms and types of private legal relations in Outer Space for the effective regulation of private outer space activities.

The purpose of such a study is to determine and form the structure of Outer Space Private Law based on establishing and defining the basic principles, concepts, and elements of the mentioned sphere of law.

Research tasks are as follows:

–Analysis of the provisions of international legal acts for the period from 1957 till the present, containing elements of regulation of private space activities;

– Analysis of the results of research by scientists in the field of commercialization of space activities;

– Definition of the concept, goals, and principles of Outer Space Private Law;

– Definition of subjects and objects of private space activities, Outer Space Private Law, and private space legal relations;

– Definition of the structure and main elements of Outer Space Private Law;

– Formulation of the fundamental terms of Outer Space Private Law and their interpretations;

– Statement of the main provisions of Outer Space Private Law.

Object and subject of research:

– the object of the study is the process of regulation of private outer space activities;

– the subject of the research is the structure and legal elements of Outer Space Private Law.

Research methods are as follows.

To obtain the most effective scientific results of the research, it is planned to use general scientific methods (analysis and synthesis, deduction and induction along with systemic-structural), general philosophical method (dialectical and hermeneutics), and special methods (historical-legal, formal-legal, comparative-legal) of scientific knowledge.

Thus, historical and legal methods can be applied to study and analyze the historical and legal factors of the legal regulation of private relations in outer space and the process of regulating space activities.

The systemic-structural method can be used to analyze the process of regulating private relations in outer space as a system consisting of a set of elements and connections between them (these are sources

of law, objects and subjects of law, objects and subjects of cosmic activity, phenomena, principles and concepts of law, etc.) as well as the role of individual subjects in the formation and provision of design elements of Outer Space Private Law.

The formal legal method implies the legal basis for regulating private relations in outer space, i.e. for the study of law in its immanent form (its definition, characteristics, structure, cause-and-effect relationships of certain facts, events, and phenomena).

Using the dialectical method, inherently opposite scientific approaches and opinions on the regulation of private relations in outer space as well as essentially opposite legal provisions (collisions) of the process of legal regulation of private relations in outer space, etc. can be identified and analyzed.

By applying methods of analysis and synthesis, scientific doctrines and theories of regulation of private relations in outer space can be analyzed.

Methods of induction and deduction can serve to determine the sequence and pattern of formation and evolution of the process of legal regulation of private relations in outer space along with the direct and reverse influence of legal provisions on specific events and phenomena of space activity.

Features of the object and subject of the study suggest the possibility of applying the basic principles of legal hermeneutics to clarify and update the conceptual-categorical apparatus of legal regulation of private relations in outer space, in particular, by defining and interpreting new and existing terms taking into account the general moral human laws and principles.

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