

우주공간에서의 재산권에 관한 소고

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Introduction

Indeed the outer space is free for thousand satellites and the rockets. As the States parties to the Outer Space Treaty agreed to an one set of principles founding the regime of the space law, human space activities are allowed the right to such freedom. Freedom in outer space, however, is not unrestricted and must be exercised subject to the predominant 'common interest' principle.¹⁾ These two main principles relates to the rationale of rules emerging at the beginning of the space age which is also the beginning of the space law. The rationale is rooted in the doctrines and the politics. Denying the legitimacy of occupying any parts of the outer space satisfied the political interests of space fairing States. 'Res communis' idea was converted into the rationale which met such political needs in the best way available.²⁾ This rationale, as its roman law concept implies, is based upon ownership to things.

While it supported the politics in the outer space during last 40 years, the res communis rationale, however, seems far from accommodating the diversity and magnitude of current space activities. The reason may be that politics has changed, and the nature of space activities has changed as well.

This paper is to review why the rationale should be revisited and new rationale would be needed.

1) "Legal Issues Relating to the Global Public Interest in Outer Space", Ram Jakhu, p.11

2) Eilene Galloway, "Consensus decision making by the United Nations committee on the peaceful uses of outer space", Vol.7, No.1 Journal of Space Law, 1979, p.11 "there was at the beginning of the space age a strong and prevailing motivation for international cooperation and agreement because of the realization that space science and technology could be used for peace and war. ... So strong was the motive to use outer space for the benefit of all mankind that claims of sovereignty, the most critical of issues, could be prohibited by treaty."

I. Dual aspect of the OST

1-1 Res communis rationale in the OST

"The province of all mankind" in the OuterSpaceTreaty, descends from the Roman civil law concept of *res communis*. Loosely translated, *res communis* means "community property." *Res communis* refers to "things legally not property because they [are] incapable of dominion and control." Under Roman law, *res communis* applied to, for example, the air, running water, and the oceans. Such communal property "is not susceptible of any form of appropriation" and "must remain free to be used for the benefit of mankind as a whole."³⁾ It is Mr. Oscar Schachter who proposed in 1952 the idea of seeing the outer space as *res communis*.⁴⁾ Among many scholars, this idea has been shared as a qualification of the status of the outer space.⁵⁾ While the far-reaching global changes occurred, scholarly minds in space law were psychologically committed to the positivist idea of rules and principles.⁶⁾ On the other hand, the provisions of the OST appear to coincide with the *res communis* characteristics.⁷⁾

3) STAKING A CLAIM IN THE TWENTY-FIRST CENTURY: REAL PROPERTY RIGHTS ON EXTRA-TERRESTRIAL BODIES, Ryan Hugh O'Donnell, *University of Dayton Law Review*, Spring, 2007

4) "outer space and the celestial bodies would be the common property of all mankind, over which no nation would be permitted to exercise domination... [and] a legal order would be developed on the principle of free and equal use, with the object of furthering scientific research and investigation." Oscar Schachter, "Who Owns the Universe?" in Cornelius Ryan, ed., *Across the Space Frontiers* (New York: Viking Press, 1952) cited in "Law's Empire and the Final Frontier: Legalizing the Future in the Early *Corpus Juris Spatialis*", by Barton Beebe, *The Yale Law Journal*, Vol. 108:1737, p.1737

5) *Supra* note 3, Beebe, p. 1760, "Most commentators, in contrast, sought to establish an altitudinal boundary between sovereign airspace and the *res nullius*, *res communis*, or *res extra commercium* of outer space."

6) WHITHER INTERNATIONAL LAW, THITHER SPACE LAW: A DISCIPLINE IN TRANSITION, by S.G. Sreejith, *California Western International Law Journal* Spring 2008, p.400

7) Professor Bin Cheng's comments in the report "Review of space law treaties in view of

The Outer Space Treaty, in its Article I, Paragraph 1, stipulates that, “The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development.” There has been common understanding among most scholars that this Article specifies one of the various principles of the space law.⁸⁾ On the other hand the Article II provides that “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means”, clearly precluding the exclusivity of possession that is the foundation of ownership.⁹⁾

These provisions are supporting the use by every States of the resources not owned by any body. The *res communis* idea appears to be upheld.

1-2 Provisions of the OST

However, the provisions of the OST have a sort of flaw when it is reviewed with strict legal reasoning used commonly in the law of the sea. It is helpful to resort to the rationale and basic idea of Grotius. He distinguished three different terms used to signify the legal status of the sea. The sea was either “the property of no one (*res nullius*), or a common possession (*res communis*), or public property (*res publicae*).”¹⁰⁾

It seems that these classifications followed the classifications set forth in

commercial space activities”, the International Law Association, London Conference (2000), Space Law Committee, p.16

8) “This provision of the OST occurs in the first Article of the OST and not in the Preamble where the States Parties to the OST only confirm the common interest of all mankind in space exploration. No doubt, it is to be recognized that the general interests principle of Article I. keeps its full binding force under present international law”, Marco Markoff, “*Traité de droit international public de l’espace*”, Pedone 1973, p.265

9) EFFICIENT ALLOCATION OF REAL PROPERTY RIGHTS ON THE PLANET MARS, David Collins, Boston University Journal of Science and Technology Law Summer 2008, p.205

10) HUGO GROTIUS, THE FREEDOM OF THE SEAS 3 (James Brown Scott ed., Ralph Van Deman Magoffin trans., Oxford University Press, 1916).

traditional Roman law, for example, in which *Res communes omnium* were things belonging to everybody: the air, floating water, the sea and the shore. The rationale behind his ideas consists in taking a logical reasoning for the purpose of defining the legal status of the sea.

It, however, should be admitted that the OST does not define the status of the outer space. The solution was to insert vague language that could be interpreted whichever way the reader wanted, but would leave the enactment of any real rules to a future discussion.¹¹⁾ The major problem lies in that the OST and the rules of the space law has been the object of controversial debate around what to regulate and how to regulate. It is the spatialists versus the functionalists controversy. A spatialist approach is founded upon one of typical legal reasoning which requires that an object of the law be defined in such a manner that the rights and duties of the subject of the law are clearly defined with respect to that object.

This approach is very analogous to and may find its similarity in the law of the sea. For example, freedom of navigation in the high seas is based upon the legal status of high seas, which is defined as the seas not belonging to territorial waters, etc.

Some writers have developed a different legal rationale by which the States should not worry as to the fixing of a demarcation boundary plane but rather should concentrate on the purpose or nature of so called space activities, regardless of the location of these activities. This school is populated with the likes of F. B. Schick, D. Goedhuis, Chaumont, R. Quadri and Seara Vazquez. At the early stage of discussion regarding the space law, one Italian author had provided a very valuable insight. Prof. Seara-Vazquez said, "In order to determine the juridical nature of the space, we must, first of all, identify it, define it. But to identify a thing we must delimit it. However, we cannot find a basis for delimiting the space. ... We should not consider the space as a delimited thing, for it is not contained

11) SPACE SETTLEMENTS, PROPERTY RIGHTS, AND INTERNATIONAL LAW: COULD A LUNAR SETTLEMENT CLAIM THE LUNAR REAL ESTATE IT NEEDS TO SURVIVE?, Alan Wasser, Douglas Jobs *Journal of Air Law and Commerce*, Winter 2008, p.41

but a content. ... If we finally admit the necessity to consider that the space cannot be defined, either with regard to the object or with regard to the phenomenon, we arrive at the conclusion that the space cannot be per se the object of a law on the part of the States.”¹²⁾ Professor Matte stated that “this proposal obviates the need for clear delimitation of the milieu by its very premise.... The functional theory is predicated on the purpose of the activity conducted in space rather than the physical location of its occurrence.”¹³⁾ From the viewpoint of this theory, the concepts of freedom of space and state sovereignty must be understood as indicating a functional freedom and a functional sovereignty.¹⁴⁾ And according to the functional approach, the legal regime applicable to the launcher is decided depending upon the purpose or function of its flight.¹⁵⁾

Functional approach was suitable for political considerations prevailing during the early of 1960s.¹⁶⁾ The 1967 Outer Space Treaty was not free from such political considerations. It has been considered as having adopted, as a matter of fact, functional approach rather than spatialist approach.¹⁷⁾ And, the

12) Prof. Modesto Seara-Vazquez, “The functional regulation of the extra-atmospheric space”, p. 139, 2nd Colloquium on the law of outer space, International Astronautical Federation, 1959

13) Matte, N.M., “Space activities & emerging international law”, Centre for Research of Air & Space Law, McGill University, Canada, 1984, p.380

14) Matte, *supra*note 9, p.381

15) For example, “If one looked at the choice of law problem (between air law and space law) purely from a functional perspective, there appears to be substantial support for the view that the Shuttle is a spacecraft and remains such during its descent. The purpose and function of the Shuttle is to serve as a transport device between earth and orbit and, for that reason, it can be convincingly argued that the rules of space law are to apply to its operations.”, Stephen Gorove, “The space shuttle : some of its features and legal implications”, *Annals of Air and Space Law*, 1981, p. 387

16) “The reluctance of some states to assert unequivocally that national sovereignty stops at a relatively low altitude and beyond that point space is “free” lies partly in the fear that the two space powers might act immoderately with regard to each other. ... Hence their emphasis on a legal regime which insists that uses of space be “useful”, that space powers act ‘reasonably’, ...”, Leon Lipson, Nicholas Deb. Katzebnach, “Report to the N.A.S.A on the law of outer space”, 1961, July, American Bar Foundation, p.27

17) Marcoff, *op.cit.*, p.201, “Le Traité spatial de 1967, suivant la tradition suivie dans les résolutions de l’Assemblée Générale sur l’espace, a préféré, lui aussi, ne pas définir ce dernier mais se référer

rules belonging to space law regime formulated through this treaty presuppose that they are confined to referring to the ways and means relating to the use of outer space, rather than to the place where actual space uses are occurred.

II. Implications of dual aspect of the OST

2-1 Sovereignty in the outer space

States have exercised sovereignty over the space above land at least as far back as the Roman Empire. Roman law recognized, regulated, and protected private rights in space above the surface. Because a state cannot impose its will within the territory of another state, these states therefore claimed territorial sovereignty above their surface territory. Although writers generally agree that Roman law recognized private rights in air space, the writers do not agree on the extent of the right recognized.¹⁸⁾

But, the fatal error in the functional approach is the over enthusiastic attempt to put together in an untidy manner a jumble of considerations best treated alone and to hazard a single criteria from this.¹⁹⁾ The spatial approach has more merit than the functional approach under the present international legal system because the former can more easily decide the law to be applied.²⁰⁾

Such lacks in the OST allow the presence of the sovereignty in the outer

plutôt aux activités y entreprises.”

18) THE VERTICAL LIMIT OF STATE SOVEREIGNTY, Dean N. Reinhardt, *Journal of Air Law and Commerce*, Winter 2007, p.69

19) “The Never Ending Dispute: Legal Theories on the Spatial Demarcation Boundary Plane between Airspace and Outer Space”, by Dr Gbenga Oduntan, *Hertfordshire Law Journal*, 1(2), 64-84, ISSN 1479-4195 online/ISSN 1479-4209 CD-ROM, http://perseus.herts.ac.uk/uhinfo/library/i89918_3.pdf

20) Questionnaire on possible legal issues with regard to aerospace objects: reply from the Republic of Korea (A/AC.105/635/Add.1)

space.

Professor Marcoff stated that the sovereign control is not preempted in the outer space. The freedom of space flight, for him, is given in accordance with the accord of the States, who do not give away their sovereign right to control their territorial integrity. The most important aspect of the space law, for him, is that the sovereign States have always been in a position to judge the compatibility. For Prof. Vereshchetin the reason for such aspect lies in the fact that outer space is physically located above the sovereign air space.²¹⁾ In other words, it is territoriality on the earth that should still be taken into account regarding the matters related to the outer space. Therefore, for him, since the birth of space law, freedom of exploration and use of outer space has been interpreted in terms of relations between sovereign and equal States which carry out their space activities strictly observing the rules of basic international law.²²⁾

Article II of the OST is not sufficient for excluding completely the sovereignty in the outer space. It has always been interpreted as signifying the prohibition of the sovereign appropriation of outer space or its part. For some scholars, however, a question, still remains not answered regarding whether such prohibition extends to just an exercise of sovereign right. Prof. Marcoff said, "The prohibition in space law is referring just to the exercise of the plenitude of exclusive competence. ... Such relativity attitude toward the flight freedom as well as the sovereign right in modern positive space law leads us to consider it as *de lege ferenda* ..."

21) "The Soviet science of law, since the very beginning of the space era, has emphasized the fact that non-extension of state sovereignty to outer space proper does not abolish general principles of international law binding upon states in their relations, irrespective of the area of activities - high seas, air or outer space." Since the birth of space law, freedom of exploration and use of outer space has been interpreted in terms of relations between sovereign and equal States which carry out their space activities strictly observing basic international law rules." V.S. Vereshchetin, "On the Principle of State Sovereignty in International Space Law", AASL, 1977, p432

22) Ibid.

2-2 Rationale of freedom of use

The question of freedom of use is related to the legal status of the outer space. In his paper in 1959, Professor Goedhuis said, “if the principle that outer space is to be considered as ‘res communis omnium’ is accepted, then as a necessary corollary, freedom of innocent passage (innocent in the sense of it not being prejudicial to the peace, good order or security of the underlying State) through the space which is not considered to be outer space, should be recognized.²³⁾

However, the OST doesn’t contain any provisions defining the status of the outer space. Therefore a question arises here as to what allows such freedom of use. It may be assumed that, as many scholars maintained their positions, the freedom is given and considered as legal on the condition that such activity is done in accordance with the provisions of the OST.

It may be right, but many points implied are to be taken into account. Most of all, the OST does not define who to own the outer space, neither define the outer space as res communis. Therefore, it is not proper to consider res communis rationale as an unique source for allowing the freedom. As the sovereignty is not completely excluded from the outer space, it becomes more evident that res communis rationale is losing its basis. Professor Marcoff’s opinion is valuable in this context. As he wrote, the freedom is not based upon the theoretical reasoning, upon the outer space, using the same concept and criteria applied to “res” in roman civil law concept, but it is based upon the real international relations.

It is assumed here that borrowing from such roman civil law concept leads us into a difficult task for finding the sources for freedom. It is particularly the property paradigm but others that is the main cause of such difficulty. Such concepts as res communis, res nullius, or res extra-commercium are focusing upon who own the outer space, and such paradigm provoked a chaos

23) D. Goedhuis, “The question of freedom of innocent passage of space vehicles of one State through the space above the territory of another state which is not outer space”, p.43, 2nd Colloquium on the law of outer space, International Astronautical Federation, 1959

of unsatisfactory answers, indeed “a complete lack of authoritative prescriptions.”²⁴⁾ Indeed, it is mature to admit the flaw of the OST, especially its *res communis* rationale as well as ownership oriented paradigm. The disparate interpretations of the provisions on national appropriation in the space treaties would lead to different practical results. One interpretation emphasizes strict adherence to the common heritage principle and would tend to promote scientific exploration to the detriment of commercial development. The other interpretation focuses on an extremely literal reading of the Outer Space Treaty. This approach would favor private enterprise while risking international discord.²⁵⁾ After a discussion of these two competing interpretive models of the treaties, and of their comparative merits and shortcomings, a number of proposals follow.

III. Right to use the outer space

Modern space activities and the rules applied to such activities have allowed the present author to identify some constitutive elements of new rationale or paradigm for setting space law regime. Prominent one is the right to use the outer space, whatever the ownership might be.

24) “The question of ownership tended to function in the West as the catchall for a wide variety of inquiries into more specific issues relating to extraterrestrial sovereignty, jurisdiction, conflict of laws, and property rights. Such inquiries typically began with a question that remains unresolved to this day: Where does sovereign airspace end and outer space begin? The question of atmospheric sovereignty received “more attention from the legal writers than any other space law problem.” 161 In the process, it provoked a chaos of unsatisfactory answers, indeed “ a complete lack of authoritative prescriptions.” Barton Beebe, *op.cit.*, p.1759

25) STAKING A CLAIM IN THE TWENTY-FIRST CENTURY: REAL PROPERTY RIGHTS ON EXTRA-TERRESTRIAL BODIES, Ryan Hugh O'Donnell, *University of Dayton Law Review*, Spring, 2007

3-1 right to use the outer space in domestic legislations

Important feature of the space activity nowadays resides in the usage of the outer space without concerning its property or ownership matter. Thousands satellites and launchers have traveled and orbited in the outer space free from ownership problem. Those activities have presumably the right other than the ownership. Several national rules regulate various activities relating to the space exploration and use, without mentioning about whatever the property or ownership matter could be.

Domestic rules regarding the launch activities belong to this category. For example, United States Code, Title 49, Section 70101 (b) specifies that the law aims at promoting economic growth and entrepreneurial activity through use of the space environment for peaceful purposes.²⁶⁾ Besides, other provisions establishes the applicability of domestic rules to the launch itself.²⁷⁾

In the matter of orbital slot and frequency spectrum, the radio communication act of the Republic of Korea specifies that the license holder for satellite radio communication shall have the exclusive right to use the orbital slot.²⁸⁾

3-2 right to use the outer space in international legal text

The ITU Member States have established a legal regime, which is codified through the ITU Constitution and Convention, including the Radio Regulations. These instruments contain the main principles and lay down the

26) The launch means to place or try to place a launch vehicle or reentry vehicle and any payload from Earth (A) in a suborbital trajectory, (B) in Earth orbit in outer space, or (C) otherwise in outer space, including activities involved in the preparation of a launch vehicle or payload for launch, when those activities take place at a launch site in the United States.

27) Section 70105 prescribes that all requirements of the laws of the United States are applicable to the launch of a launch vehicle or the operation of a launch site or a reentry site, or the reentry of a reentry vehicle.

28) Radio communication act, Art. 16, Republic of Korea

specific regulations governing the rights and obligations of Member administrations in obtaining access to the spectrum/orbit resources and international recognition of these rights by recording frequency assignments and, as appropriate, orbital positions used or intended to be used in the Master International Frequency Register.

The specific procedures setting out the rights and obligations of the administrations in the domain of orbit/spectrum management and providing means to achieve interference-free radio communications have been laid down by successive World Radiocommunication Conferences (WRCs) on the basis of the two main principles of efficient use and equitable access. In order to put these principles into effect, two major mechanisms for the sharing of orbit and spectrum resources have been developed and implemented. First one is A priori planning procedures (guaranteeing equitable access to orbit/spectrum resources for future use), which include the Allotment Plan for the fixed-satellite service using part of the 4/6 and 1011/1213 GHz frequency bands contained in Appendix 30B and the Plan for the broadcasting-satellite service in the frequency band 11.7-12.7 GHz (Appendix 30) and the associated Plan for feeder links in the 14 GHz and 17 GHz frequency bands (Appendix 30A). Second one is Coordination procedures (with the aim of efficiency of orbit/spectrum use and interference-free operation satisfying actual requirements),

Nobody owns thus any orbital position but everybody can use this common resource provided that the international regulations and procedures are applied.

3-3 Paradigm of the right to use

The right to use recognized in domestic or international rules is also allowed by the space law, especially the OST. Article 1 of the OST provides the freedom of the State parties to use the outer space in accordance with the international law. As it is entitled through the ITU regulations, the right to use orbital slot, for example, belongs to the freedom to use the outer space in the sense of the Article 1.

Based upon this, it can be referred that the right to use without ownership is allowed in the OST. In other words, whether the Article 2 of the OST prohibits the State parties from owning or occupying the orbital slot or not, the right to use is allowed. The ownership paradigm such as *res communis* rationale may provide a theoretical reasoning that such right belongs to one of the rights allowed to every States for outer space owned by every States. It should be noted, however, that the OST does not specify the legal status of the outer space. Therefore, the ownership paradigm is not valid as the basis for the right to use.

In this context, the property right theory of school of law and economics may give us a valuable insight. The right to use is a sort of diversified type of property right, especially which is contemplated in that school.²⁹⁾ According to that theory, the strength with which rights are owned can be defined by the extent to which an owner's decision about how a resource will be used actually determines the use.³⁰⁾ The property right in this sense does not equate with the ownership. In other words, it is not the resource itself which is owned; it is a bundle, or a portion, of rights to use a resource that is owned.³¹⁾ It can be carefully referred that property rights concept in such theory provides more useful paradigm than ownership paradigm.

IV. New rationale for the right to use the resources

The provision of the Outer Space Treaty which has caused the greatest controversy and discussion is found in Article II: “[o]uter space, including the moon and other celestial bodies, is not subject to national appropriation by

29) Joel D. Scheraga, “Establishing property rights in outer space”, *Cato Journal*, Vol.6, No.3 (Winter 1987)

30) Armen A. Aichian, Harold Demsetz, “*The Property Right Paradigm*”, *The Journal of Economic History*, Volume 33, Issue 1 *The Tasks of Economic History*, March 1973, 16-27

31) *Ibid.*

claim of sovereignty, by means of use or occupation or by any other means.” This provision may be interpreted as extending to not only intangible resources such as geostationary orbit but also tangible resources. As the right to use the orbit is to be given in accordance with the rules mentioned precedent section, the debate around such intangible resources has been less controversial than the one about tangible one such as, for example, mineral resources found on the moon, or the space itself on moon or celestial corps.

4-1 Debate around the right to own

Major focus of the debate on the latter case lies in interpreting the term “appropriation”. There is disagreement about what this expression deals with. Some argue that the appropriation clause simply bars ownership of the land, not the resources found within the land, which can be extracted and removed as private property. Others argue that the resources are part and parcel of the land and cannot be treated separately from it. Such disagreement involves also a question about what kind of relationship between the outer space and the subject of the law this provision aims to regulate. Besides the prohibition on sovereign territoriality on the outer space, some commentators also argue that the restrictions placed on sovereign nations are extended to individuals through their citizenship. In this context, the appropriation provision of the treaty is arguably unclear and undefined and therefore unworkable.³²⁾

The negotiating history of the Outer Space Treaty, however, clearly shows that the intention of its drafters had been to fully ban appropriation in any manner or form.³³⁾ For example, during the negotiations of the Outer Space Treaty in the Legal Subcommittee of the COPUOS, on 4 August 1966, the representative of Belgium noted that the term “‘non-appropriation,’ advanced by several delegations — apparently without contradiction by others —

32) “Transporting a legal system for property rights from the earth to the stars”, Rosanna Sattler, Posternak, Blankstein & Lund LLP, p.7
http://www.space-settlement-institute.org/Articles/research_library/TransportPropRights.pdf

33) Jakhu, op.cit, p.14

covered both the claims of sovereignty and “the creation of titles to property in private law.”³⁴⁾ This view was shared by the French representative, who, speaking to the First Committee of the UN General Assembly on 17 December 1967, stressed that the basic principle of the Outer Space Treaty was that there was a “prohibition of any claim to sovereignty or property rights in space.”³⁵⁾ The Outer Space Treaty developed from the idea of the “common heritage of mankind”(CHM) principal which states that “no one person or State owns designated international ‘common heritage’ regions.” Generally, the CHM principal revolves around common heritage areas not being subject to appropriation and States sharing in the resource management and benefits derived from those areas.³⁶⁾

When the resort to reviewing the negotiating history for the purpose of interpreting the OST is admitted, an answer may be given upon who is banned from having what kind of ownership. An interesting feature, however, still remains as to whether such ban also extends to the right to use or not.

4-2 Right to use the resources without ownership

For some author, such right of use has its basis firstly, on the fact that the OST does not prohibit the right of use in such context, and secondly, on the view that it’s a sort of diversified type of property right, especially which is contemplated in the property right theory of school of law and economics.³⁷⁾ However, in Civil Law states such as France, Germany, Japan and Korea, the right to use is nearly unthinkable without addressing the right to own. The

34) Cited in Christol, Carl, “Article 2 of the 1967 Principles Treaty Revisited”, IX, *Annals of Air and Space Law*, 1984, p. 217, at p. 236. Cited in Jakhu, op.cit. p.15

35) Ibid.

36) TO INFINITY AND BEYOND: THE ADEQUACY OF CURRENT SPACE LAW TO COVER TORTS COMMITTED IN OUTERSPACE, by Kendra Webb, *Tulane Journal of International and Comparative Law*, Winter 2007, p.257

37) Joel D. Scheraga, “Establishing property rights in outer space”, *Cato Journal*, Vol.6, No.3 (Winter 1987)

right to use is embedded and inseparable from the ownership. The right of property consists of two main elements ; the right to use the property and the power to exclude others. Therefore, if the right to own is prohibited, it is nearly hard to accept the right to use.

The OST, however, prescribes the rules belonging to the international law, and therefore, a specific custom or culture of legal system may not be the sole source for interpreting and applying them. In such context, it is not appropriate to exclude taking into consideration the right to use paradigm. On the other hand, there are some sound reasons for reviewing such right to use.

Ownership paradigm, as discussed in this paper, may be not sufficient for applying the OST. A new paradigm may be more valuable. Diversified type of the right to use would be best available one.

Conclusion

Space commercialization should be understood in social and economical dimension, which is too diverse and important for space lawyers, especially adhering to ownership paradigm, to deal with. It is mature to admit that res communis rationale operated for 40 years is not sufficiently refined to foster the advent and benefit expected from space commercialization. Diversified type of right to use is to be taken into account seriously, as workable paradigm provided by other social science.

It may be argued that such attempt would lead us to divert from the basic principles of the space law, such as non-appropriation principle stipulated in the Article II of the OST. But it is unlikely that the new rationale on the basis of new paradigm of the right to use would exclude or revise such principle. Such expectation is valid due to the fact that the OST includes the provision specifying the freedom of the right to use in accordance with international law. Furthermore, when the State parties to the OST cooperate

and agree to such rationale on the basis of good faith, the new rationale may be used for accommodating two provisions of the OST, Article I and II. There was precedent case where the rules for activities using outer space were formulated through international coordination. It was UN Resolution for remote sensing. It means that it is legal and legitimate for States to make detailed and applicable rules within the framework of the OST.

Finally, it will be space lawyers' task to make an effort for replacing ownership oriented rationale with new one accommodating current space commercialization.

초 록

1967년 우주조약은 우주공간의 비영유원칙 등을 천명하면서 우주공간의 이용에 관한 인간의 활동을 규율함에 있어서 소유권에 초점을 두고 있다. 우주공간의 공유물 이론 등에 의해서 그와 같은 취지의 조문들이 규정되어 있다. 1967년 우주조약의 기본 법리는 그와 같은 차원에서 *res communis*라고 할 수 있다.

그러나, 우주공간의 법적 지위, 및 우주공간과 영공간의 경계 등이 확정되지 않은 상태에서 그러한 법리는 우주공간에서의 이용의 자유 내지는 항행의 자유를 인정하는 반면에, 실제적으로 우주공간의 이용에 관한 제반 원칙을 형성하는 데에는 기여하지 못하고 있다.

이에 우주공간의 소유에 관한 법리가 아니라, 새로운 법리에 의해서 우주공간을 이용하는 활동을 규율하는 것이 바람직하며, 우주공간의 소유권과 관련없는 이용권의 부여에 관한 법리가 대안이 될 수 있다

주제어 : 우주조약, 평화적 이용 원칙, 등록제도, 관할권, 이용권, 손해배상청구권, 재산권

Abstract

A Study on Property Rights with respect to the Outer Space

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Denying the legitimacy of occupying any parts of the outer space satisfied the political interests of space fairing States. 'Res communis' idea was converted into the rationale which met such political needs in the best way available. This rationale, as its roman law concept implies, is based upon ownership to things.

Ownership paradigm, as discussed in this paper, may be not sufficient for applying the OST. A new paradigm may be more valuable. Diversified type of the right to use would be best available one.

Space commercialization should be understood in social and economical dimension, which is too diverse and important for space lawyers, especially adhering to ownership paradigm, to deal with. It is mature to admit that res communis rationale operated for 40 years is not sufficiently refined to foster the advent and benefit expected from space commercialization. Diversified type of right to use is to be taken into account seriously, as workable paradigm provided by other social science.

Key word: Outer Space Treaty, res communis, law and economics, ownership, property rights

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