

PROSPECTS OF REGULATION OF MINING ACTIVITIES IN THE MODERN SPACE LAW

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1. INTRODUCTION

As it is well known, international-legal relations in the field of using and research of outer space are regulated by international space law. Obviously, as time passes the presence of some uncertainties and problems in international space law is clearly noticed. Nowadays, one of the most studied and discussed themes in the international space law are issues of legal regulation of mining activities in the outer space. In fact, despite the fact that conducting mining activities in the outer space has been available as an idea since the conquer of space and the Moon, it was applied in practice just as a study aimed for scientific research purposes. However, upon signing, on 24 November 2015, of the Commercial Space Launch Competitiveness Act (CSLCA) in the USA by Former US President Barack Obama, these issues were put on the agenda with new issues. Thus, the law regulating problems of acquiring minerals from outer space was approved in the USA for the first time.

Therefore, the urgency of the subject of this paper is based on investigation of legal prospects related to implementation of mining activities in the international space law. The above-mentioned facts, beside defining the urgency of the given topic, also made it necessary to research this issue and its compliance with modern international law.

The regulatory issues of mining activities in the outer space have been researched since the beginning of the 20th century in the international law literature.

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Fabio Tronchetti,¹ Ricky Lee,² Rupert W. Anderson,³ and Edward Hudgins⁴ can be mentioned among the scholars who conduct research in this field and are the authors of books on the subject. However, researchers who have been the authors of papers on this topic in recent years must also be noted: Catherine Lvovna Farafontova,⁵ Barry Kellman,⁶ Elizabeth Howell,⁷ etc.

I must point out that many researchers have discussed this topic at forums and lectures and expressed their views: Stephan Hobe, Tanja Masson-Zwaan, Robert Richards, Ram Jakhu, Gbenga Oduntan, and others. The analysed topic has become one of the issues on the agenda in the international space law due to becoming especially urgent in recent years. The purpose of the forgoing paper is to verify the compliance of the new US normative-legal act, which provides for mining activities in the outer space, with the international law. To achieve this goal, the following tasks need to be undertaken:

- commentary on thoughts and hypotheses of legal scholars from various countries, related to national normative-legal acts adopted in the USA, which regulate mining activities conducted in the outer space;
- analysis of the current contradictions between the US Commercial Space Launch Competitiveness Act and the international Outer Space Treaty;
- assessment of legal superiority of Articles 2, 6 and 9 of the international Outer Space Treaty over newly adopted US law.

As it has been noted above, based on CSLCA, all private companies of the USA obtained the right to possess minerals which have been acquired as a result of their mining activities carried out in the outer space. It means that, by executing this law in the country, the state cannot accumulate the resources which private companies will acquire from the outer space. The given law creates opportunities for the US companies to officially carry out mining activities in the outer space. Currently, according to the newly adopted law, any US citizen may become an owner of any part that has been obtained from an asteroid. On the other hand, as the word

¹ F. Tronchetti, *The exploitation of natural resources of the Moon and other celestial bodies: a proposal for a legal regime*, Series: Studies in Space Law (Book 4), Martinus Nijhoff Publishers, Leiden-Boston, 2009, p. 382.

² R. Lee, *Law and regulation of commercial mining of minerals in outer space*, Springer Science+Business Media, Heidelberg 2012, p. 372.

³ R.W. Anderson, *The cosmic compendium: Space law*, Lulu.com, United States, 31 March 2015, p. 179.

⁴ E. Hudgins, *Space: The free-market frontier*, Cato Institute, Washington D.C., 20 December 2002, p. 220.

⁵ E.L. Farafontova, A.N. Beloborodova, *Problems of legal regulation in the field of mining operations in outer space*, Magazine: Actual problems of aviation and astronautics, Issue No. 9, Vol. 2/2013 [Е.Л. Фарафонтова, А.Н. Белобородова, *Проблема правового регулирования в области добычи полезных ископаемых в космическом пространстве*, Журнал: Актуальные проблемы авиации и космонавтики, Выпуск № 9, том 2, 2013]. The publication is available at: <http://cyberleninka.ru/article/n/problema-pravovogo-regulirovaniya-v-oblasti-dobychi-poleznyh-iskopaemyh-v-kosmicheskomprostranstve#ixzz4FFrF91GH>, accessed on 18 August 2017.

⁶ B. Kellman, *On commercial mining of minerals in outer space: A rejoinder to Dr Ricky J. Lee* 39 *Air and Space Law*, Issue 6, 2014, pp. 411–420.

⁷ E. Howell, *Who owns the Moon? Space Law & Outer Space Treaties*, 15 July 2016, available at: <http://www.space.com/33440-space-law.html>, accessed on 19 August 2017.

“resource” quoted here is of unclear meaning in this context, the said law is related to the Moon, other planets and celestial bodies. In the present situation, a group of persons from “Planetary Resources” and “Deep Space Industries” companies in the USA who are engaged in these activities may easily own these resources. In addition, according to the new law, the US citizens may possess, own, transport, use and sell the space resources acquired as they wish.⁸

The world community became aware that this step taken by the USA was followed by Luxembourg which undertook a similar initiative and justified it by confirming the legality of mining activities in the outer space at the national legislative level.⁹ Consequently, the most controversial issue arose for the international legal community. The question is whether the international Outer Space Treaty, which lays the foundation of the international space law, conforms to laws adopted within the national legislative framework.

2. THOUGHTS AND HYPOTHESES OF LEGAL SCHOLARS

At this stage, it would be purposeful to review the thoughts related to this issue of law researchers from various countries.

Professor Ram Jakhu from the Institute of Air and Space Law at McGill University regards the US Space Act as directly violating the treaty since it allows states, private firms, or international organizations to appropriate natural space resources.¹⁰

Dr Gbenga Oduntan of the University of Kent, an international commercial law expert, claims it can be assumed that the list of states with access to the outer space will grow from the current dozen or so, and they will institute their own space mining programmes. “That means that the pristine conditions of the cradle of nature from which our own Earth was born may become irrevocably altered forever, making it harder to trace how we came into being,” he wrote, warning that once celestial bodies are contaminated with earthly microbes, human chances of discovering alien life could be ruined. Furthermore, Dr Oduntan said: “The US House Committee on Science, Space and Technology, for instance, denied any violation of the country’s international obligations, although its statement currently does not have any particular reference to international law”.¹¹

⁸ *How does space law change: whether it is possible to become the owner of an asteroid?* 13 December 2015 [Как меняется космическое право: можно ли стать владельцем астероида?, 13 декабря 2015], available at: <http://hi-news.ru/research-development/kak-menyaetsya-kosmicheskoe-pravo-mozhno-li-stat-vladelcem-asteroidea.html>, accessed on 18 August 2017.

⁹ A. Pasztor, *Luxembourg sets aside funds for asteroid-mining push*, 3 June 2016, available at: <http://www.wsj.com/articles/luxembourg-sets-aside-funds-for-asteroid-mining-push-1464947123>, accessed on 19 August 2017.

¹⁰ K. Pascual from Tech Times, *US Space Mining Law is potentially dangerous and illegal: How Asteroid Mining Act may violate international treaty*, 28 November 2015, available at: <http://www.techtimes.com/articles/111534/20151128/u-s-space-mining-law-is-potentially-dangerous-and-illegal-how-asteroid-mining-act-may-violate-international-treaty.htm#sthash.iH2sjGpt.dpuf>, accessed on 19 August 2017.

¹¹ *Ibid.*

Let us focus on the opinions of scholars such as Tanja Masson-Zwaan and Robert Richards on the discussed topic. They both point out that: “The law explicitly intends to be consistent with US obligations under the 1967 Outer Space Treaty, which has been signed by over 100 nations and remains the pre-eminent international agreement governing all activity in outer space. One of its provisions is Article II, which states that outer space, including the moon and other celestial bodies, is not subject to national appropriation. Some are of the opinion that Article II makes it illegal to extract space resources, but this is not supported by international consensus. Indeed, Article II is balanced by Article I, which states, ‘Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.’ The US space resources law is not about claiming territory, nor an assertion of sovereignty or appropriation of ‘celestial land’; it is about confirming and codifying rights for US private citizens/companies to peacefully explore, extract and own resources, like the US and Soviet governments did back in the 1960s and 1970s, and like other governments and companies intend to do in the future. The new law explicitly codifies rights for the private sector that were only implicit in the Outer Space Treaty. It adds a level of certainty for investors and provides a foundation for building additional regulatory frameworks in the United States and elsewhere. The United States, as a signatory to the Outer Space Treaty, is obliged to make sure that any private company it authorizes or licenses will not violate the state’s treaty obligations. These include that the exploration and use of space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind and promote international cooperation, that the moon and other celestial bodies may be used only for exclusively peaceful purposes, harmful contamination and interference shall be avoided, etc.” Moreover, the above-mentioned researchers also point out that the new US law will help protect mining activities that could one day help the economies of the Earth and secure our future in space.¹²

Russian law scholars when trying to find the solution to this issue refer to the existing similar norm in international Law of the Sea. As it is known, according to the United Nations Convention on the Law of the Sea, dated 10 December 1982, the special norms are considered in connection with regulations for mining of minerals from the international seabed Area: “The Area and its resources are the common heritage of mankind. No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights, nor such appropriation shall be recognized. Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and

¹² *Will the United States rule space resource mining?*, posted on 22 December 2015 by T. Masson-Zwaan and B. Richards in *Interdisciplinary Study of the Law*, available at: <http://leidenlawblog.nl/articles/will-the-united-states-rule-space-resource-mining>, accessed on 18 August 2017.

needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations.”¹³

Thus, many Russian scholars are guided by the norms of the United Nations Convention on the Law of the Sea in legal settlement of the international problem of minerals mining in the outer space. The mentioned researchers support the idea of relevant norm development which may be applied to the international space law.¹⁴

One can list numerous similar views.

3. CURRENT CONTRADICTIONS AND SUPERIORITY OF THE INTERNATIONAL LAW

I would like to explain my thoughts on the studied topic as follows. As it is well known, Article II of the Outer Space Treaty of 1967 (the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies) reads: “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.”¹⁵ I think that the quoted Article II clearly stipulates that the outer space is not to be the subject of national appropriation by claim of sovereignty, use or occupation, or in any other manner. In addition, this issue is defined as an important principle of the international space law and has been included in national legislations of the majority of states which have ratified the international Outer Space Treaty. Namely, under this Article, forming the basis of the space law, the matter of contradiction between the newly adopted US law and the international treaty can be seen as urgent. In the modern time, the idea of industrial appropriation of the outer space is considered in terms of space information complexes, space scientific systems, space industrialization, etc. Naturally, although these matters are globally important, this does not mean the space is to be appropriated. Moreover, the ban on national appropriation of the outer space is the base line of international law. From this point of view, any interstate legislative act which facilitates the national appropriation of the outer space contradicts the international law. Unfortunately, this issue is not supported by international consensus among scholars who conduct research in this field.

On the other hand, the US and some European researchers (e.g. Tanja Masson-Zwaan) try to comment on Article I of the international Outer Space Treaty in favour of the USA. In Article I of the Outer Space Treaty, it is said that: “The exploration and use of outer space, including the Moon and other celestial bodies, shall be

¹³ The United Nations Convention on the Law of the Sea (UNCLOS) of 1982, Articles 136, 137, 140, available at: http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf, accessed on 18 August 2017.

¹⁴ E.L. Farafontova, A.N. Beloborodova, *Problems of legal regulation...* [Е.Л. Фарафонтова, А.Н. Белобородова, *Проблема правового регулирования...*].

¹⁵ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 27 January 1967, Article II, available at: http://www.unoosa.org/pdf/publications/ST_SPACE_061Rev01E.pdf, accessed on 19 August 2017.

carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind. Outer space, including the Moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies. There shall be freedom of scientific investigation in outer space, including the Moon and other celestial bodies, and States shall facilitate and encourage international cooperation in such investigation".¹⁶ In my opinion, Article I of the aforementioned treaty is of a general and introductory nature and by no means provides for the mining activities in the outer space as conducted by individual companies at their own discretion. Some researchers speak about "free access of celestial bodies in all areas" and distort the meaning of the relevant article by supplying the wrong commentaries. In fact, Article I of Outer Space Treaty allows only conducting scientific research and studies. As seen in the Article, some countries may cooperate in scientific research carried out in the outer space. However, the law adopted in the USA entirely rejects the requirement of the international treaty. Specifically, according to this law, the US citizens may become the owners of acquired space resources, sell and transport them as they deem. It becomes clear that this law is not intended for scientific research. This law clearly helps individuals and relevant companies to set an extensive business network which will result in mining activities carried out in space.

Overall, it should be noted that there is a fundamental contradiction between the new US law and the international Outer Space Treaty. Primarily, it should be taken into account that both Article II and Article IX of the Outer Space Treaty complement each other and reveal that the newly adopted US law infringes the international law. Article IX of the Outer Space Treaty reads: "States Parties to the Treaty shall pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose. If a State Party to the Treaty has reason to believe that an activity or experiment planned by it or its nationals in outer space, including the Moon and other celestial bodies, would cause potentially harmful interference with activities of other States Parties in the peaceful exploration and use of outer space, including the Moon and other celestial bodies, it shall undertake appropriate international consultations before proceeding with any such activity or experiment."¹⁷ As it can be seen, the states came to agreement on implementing relevant actions for prevention of outer space and celestial bodies from contamination, and of undesirable change to the environment on the Earth. It means that the states which adopted this treaty cannot be ignorant of this matter, which is crucial for mankind. I should be pointed out that the duty of the states to avoid harmful contamination of the outer space is considered by many researchers an important principle of the international space law.

¹⁶ *Ibid.* Article I.

¹⁷ *Ibid.* Article IX.

The contradictions between the international Outer Space treaty and the newly adopted US law do not consist of just the above-commented issues. Given this, I must point out in particular the provisions related to activity of non-governmental organizations in the outer space, as stipulated in the other parts of the said international treaty. Such contradictions are directly linked with the implementation of obligations arising from the newly adopted US law. As it is well known, Article VI of the international Outer Space Treaty stipulates that: "States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present 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."¹⁸ As it can be seen, Article VI of the treaty requires countries to perform "authorization and continuing supervision" of activities in space by non-government entities under their jurisdiction. That is usually done in the United States by licensing of commercial activities: by the Federal Aviation Administration (FAA) for launches and re-entries, by the Federal Communications Commission (FCC) for communications, and by the National Oceanic and Atmospheric Administration (NOAA) for remote sensing. But other emerging commercial activities, including not just asteroid mining but also lunar landers, satellite servicing, and commercial space stations, fall into gaps where there is no clear licensing authority and, thus, no means for the US to carry out its obligations under Article VI.¹⁹

To regulate at least the said activity, the matter of allowing of such missions had to be reflected in the US legislation. The above once again shows that the USA cannot implement the obligations stipulated in Article VI of the international Outer Space Treaty as it is required. Thus, the USA is deprived of the present law application practice and there is a legal vacuum in the legislation of the state in view of regulating relations in this field. That is, no relevant norm is provided for licensing activities of non-government organizations under the newly adopted US law. For that reason, currently the obligations that the state is bound by based on the relevant international treaty as concerns activity planned by the US companies remain aside from legal regulation. It is clear that at present the US Government has no possibility to fulfil the obligations stipulated under Article VI of the international Outer Space Treaty.

A group of US researchers analyse the content of other articles of the Outer Space Treaty in a different manner and try to legalize the new law at the international level. No doubt, the Outer Space Treaty provides for the basic issues related to use of the outer space in a clear and exact manner with mutual understanding of the parties. That is, providing relevant comments on given provisions according to own

¹⁸ *Ibid.* Article VI.

¹⁹ J. Foust, *Mining issues in space law*, 9 May 2016, available at: <http://www.thespacereview.com/article/2981/1>, accessed on 19 August 2017.

purpose, the content will not be changed. Therefore, I believe that the new US law may be considered a unilateral normative-legal act which entirely confronts the international legal regime. This once again shows that the USA do not observe the duties and obligations stipulated in the international Outer Space Treaty.

The research conducted shows that the US Commercial Space Launch Competitiveness Act decidedly contravenes the international treaty. To my mind, this law will change completely the direction in which the outer space law aims, and which was developed over many years and adopted at the international level. I believe that the US law paves the way for a dangerous precedence in the future. As a result, in many countries, the tradition of adopting such draft laws may be started. As I have already noted, Luxembourg formed a normative-legal base which supports the US activity. The state which ratified the international Outer Space Treaty should avoid adopting the above law. Undoubtedly, the provisions of the international treaty were adopted after extensive debates based on the opinions of experts and reflect a unified approach. The adoption of the discussed law in the USA may cause various problems not only of legal but also ecological nature. Ecologists, as well as experts dealing with space studies, claim that continuation of such process may be hazardous for the environment of the Earth. In my view, the adoption of the new law by the USA just for business purposes in contradiction to international legal obligations may bring about a new ecological threat.

At the same time, if we approach this issue from another perspective, the universally adopted legislative standards should be especially taken into account. Today, the legislation of many countries provides for requirements on safe implementation of mining works on the Earth. For example, when conducting mining works on the Earth's interior, the important matters like condition of the atmosphere, control of oxygen in the relevant area, etc. are strictly observed. In addition, the mining controlling authority in each state bears responsibility for conducting mining works according to the established rules and in a safe mode. At the same time, no relevant requirements were established at the international level for the outer space to secure performing of mining works under safe conditions. Obviously, any mining work should be implemented without contaminating the space in view of conditions in the outer space. In this regard, I believe that carrying out of this process in the outer space leads to many unresolved questions for the international law and ecology. The questions arise of how to carry out mining works in the outer space and control this process by the international entity, bearing in mind the harmful impact of the activities on the environment, maintaining the ecological balance, quantitative and qualitative change in individual components in the ecological system, etc. There is no legal tool connected with regulation at the international level of mining works in the outer space. There are justified reasons, namely the world community relying on the international Outer Space Treaty has not thought about it and research in the outer space was conducted just for scientific purposes. In my opinion, the relevant legislative acts adopted in the USA and those drafted in Luxembourg violate the requirements of the international Outer Space Treaty, and create potential danger for the outer space, as focused on business approach, and of illegal nature. Presently, under the international Outer

Space Treaty the adoption of any national legislative act which provides for mining works in the outer space is avoided. In the current circumstances, the adoption of acts with such content must be guided by the requirements of the international Outer Space Treaty, since in regulation of relations in this field the international treaty is legally effective at the global level.

4. CONCLUSIONS

To summarise above discussion, I am in favour of codifying issues related to future mining activities in the outer space by means of a unified international legal act. In particular, a new international convention should be adopted to regulate mining works in the outer space. Such convention may not ignore the principles defined in the treaty governing the exploration and use of outer space and the agreement governing the activities on the Moon and other celestial bodies. It must be noted that the general content of provisions of the treaty on the Moon entirely support the Outer Space Treaty. The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies adopted in 1979 (the Moon Agreement) provides that: "The exploration and use of the moon shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development." My aim is to note that the new international convention to be adopted in this field cannot acknowledge the interests and benefits of a couple of states (e.g. the USA, Luxembourg or other). Such new international convention has to reflect comprehensively the interests and benefits of all world states in the outer space. Briefly, the new international convention should take into account the requirements of all important agreements adopted previously in the field of the international space law. At present, American companies are free to act in the outer space as they wish. This is because the newly adopted US law does not meet relevant international legal obligations. Practically, the activity of American companies in the outer space will be carried out freely without relying on any international legal obligations. They do not have any barrier to that. However, the equality conditions should be taken into account as the basis in view of conducting such activities in the outer space. This principle can be established only by way of the new international convention. It would also be beneficial if the mining activity conducted in outer space is not entirely business-focused. Namely, this issue may be classified under relevant norms as scientific research work, business survey, etc. in the frame of the new international convention. Moreover, the new convention should acknowledge the fundamental principles of the international space law and the international environmental law. All the aspects I have mentioned above, related to implementation of safe works in the outer space, should be reflected in the relevant norms. This proposed convention should certainly define specific international and interstate standards on ecology.

In addition to the international convention, a special international body may be also established in order to regulate the activities involving search for, exploration and utilising of minerals in the outer space, as well as to secure control in this

area. The status and competences of such body may be stipulated in the discussed international convention. Further remarks may be offered, should an initiative for the new international convention arise at the international level.

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US Commercial Space Launch Competitiveness Act (CSLCA) of 24 November 2015.

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Summary

This paper analyses the issues of discrepancies between the new US regulatory legal act, which provides for conducting mining activities in outer space, and the international law. The author analyses the contradictions between the US Commercial Space Launch Competitiveness Act and the international Outer Space Treaty, where the shortcomings have also been presented. According to the results of the analysis carried out in the paper, it has been revealed that in the modern time the relevant legislative acts adopted in the United States and those drafted in Luxembourg violate the provisions of the international Outer Space Treaty. By creating an environmental hazard for space, they focus on non-legal approach of business nature. By adoption of the new law, the USA does not meet its obligations under the international Outer Space Treaty. Presently, the international Outer Space Treaty makes it impossible to adopt some national legislative act, which defines mining activities in the outer space. In view of the above, the author offers to adopt a new international convention in the field of mining activities in the outer space in the future. Only the new international convention may reflect comprehensively the interests and benefits of all world states in the outer space. Beside adopting of the international convention, a special international body may be also established for the purpose of regulating activities related to search for, exploration and utilization of minerals in space and securing control in this area.

Key words: outer space, international space law, mining activities, space resources, celestial bodies, the Moon

PERSPEKTYWY UREGULOWANIA DZIAŁALNOŚCI GÓRNICZEJ WE WSPÓŁCZESNYM PRAWIE O PRZESTRZENI KOSMICZNEJ

Streszczenie

Autor analizuje rozbieżności między nowym aktem prawa amerykańskiego, który przewiduje prowadzenie działalności górniczej w przestrzeni kosmicznej, a prawem międzynarodowym. Artykuł wykazuje sprzeczności między amerykańską ustawą o wolnym dostępie do komercyjnych przestrzeni kosmicznych (Commercial Space Launch Competitiveness Act) a międzynarodowym Traktatem o przestrzeni kosmicznej, przedstawiając również pewne braki w tym zakresie. Przeprowadzona analiza dowodzi, że akty prawne przyjęte w Stanach Zjednoczonych oraz w Luksemburgu naruszają postanowienia międzynarodowego Traktatu o przestrzeni kosmicznej. Stwarzając zagrożenie dla środowiska naturalnego, koncentrują się na sprzecznym z prawem podejściu do prowadzenia działalności gospodarczej. Przyjmując nową ustawę, Stany Zjednoczone nie realizują przyjętych zobowiązań wynikających z Traktatu o przestrzeni kosmicznej. Obecnie traktat ten uniemożliwia przyjęcie krajowego aktu praw-

nego regulującego działalność górnictwa w przestrzeni kosmicznej. Autor proponuje przyjęcie nowej międzynarodowej konwencji w dziedzinie górnictwa w przestrzeni kosmicznej. Tylko takie rozwiązanie może w pełni odzwierciedlać interesy i korzyści wszystkich państw świata w przestrzeni kosmicznej. Poza przyjęciem nowej międzynarodowej konwencji, zasadne jest ustanowienie specjalnego organu międzynarodowego regulującego działania związane z poszukiwaniem, badaniem i wykorzystaniem minerałów w kosmosie oraz zapewniającego kontrolę w tej dziedzinie.

Słowa kluczowe: przestrzeń kosmiczna, międzynarodowe prawo kosmiczne, działalność górnictwa, zasoby przestrzeni kosmicznej, ciała niebieskie, Księżyc