

UDC 341.229

## LEGAL CHALLENGES OF SPACE COLONIZATION

© Shevchenko E.V., Mamedov Z.I.

*Samara Social Pedagogical College, Samara, Russian Federation*

e-mail: shevchenkoe2003@mail.ru

Space colonization is viewed as a concept of space advocacy for permanent human habitation and exploitation of natural resources off the planet Earth. Space colonization was often depicted in science fiction and films, but we suppose it will not take long before the first colonies are established on the planets closest to Earth. For example, several private and national space agencies (Space X, Blue Origin, Virgin Galactic, NASA, China National Space Administration) are competing in the Mars race. The establishment of the first colony on other planet(s) inevitably offers the legal challenges for various countries and companies. The legal aspects of space colonization were investigated by N.E. Anokhin and S.I. Solovyov [1], R.A. Konygin [2], S. Bruhns and J. Haqq-Misra [3], B.C. Gruner [4], J. Fitzmaurice and S. Henderson [5] and others.

The present paper is devoted to the most significant legal challenges and possible ways of meeting them. The most significant legal challenges are as follows:

- it is supposed that the first colonizers will have a priority to own a section of the area which they were the first to colonize;
- in case of international space colonies how will the parts of the colonies be governed? According to which jurisdiction?
- the main article in a law of any space colony must guarantee the right to breathe;
- another significant article must guarantee the right to leave a space colony;
- one of the main problems of legal regulation of the future space colonies concerns the sources of law – who will adopt legislation in space colonies?
- another problem is the problem of independence – will the colonizers be able to establish their state on their planet(s) and issue their laws?

These and other challenges must be met while taking into consideration the 1967 Outer Space Treaty, according to which the governments cannot claim the space and natural celestial bodies, they cannot claim right to possess these objects and space can be used and investigated only for peaceful purposes. The challenges can also be met with the use of such tools as analysis of history, forecasting, advance planning and solution.

For example, private and governmental parties will land on and occupy limited plots of Mars' and other planets' surface, which they will govern according to their national laws. The international space colonies will be divided into parts and blocks, which will be governed according to certain national laws, but some parts or blocks will have a general jurisdiction, e.g., a dining-room. Conflicts will be solved diplomatically, or through use of the temporary tribunal composed of representatives of other colonies on Mars or other planets.

The International Space Station can act as a prototype for future international colonies in space. It is supposed that the international space colonies on the Moon and Mars will have a legal regime which is identical to the legal regime of the International Space Station. The legal challenges of space colonization and the possible ways of meeting them determine the development of a legal framework to govern a human habitat on Mars and other planets to ensure compliance with the rule of law, to ensure clarity of rights and obligations between inhabitants, and to provide a legally stable environment for the venture's long term success.

### References

1. Анохин Н.Е., Соловьев С.И. Правовые аспекты «колонизации» космических объектов // Современные проблемы международного космического права: материалы круглого стола XVII Международного конгресса «Блищенковские чтения». Москва, 13 апреля 2019 г. / отв. ред. А.Х. Абашидзе, И.А. Черных. М.: РУДН, 2019. С. 37–42.
2. Коньгин Р.А. Правовые вопросы космической колонизации // Современные проблемы международного космического права: материалы круглого стола XVII Международного конгресса «Блищенковские чтения». Москва, 13 апреля 2019 г. / отв. ред. А.Х. Абашидзе, И.А. Черных. М.: РУДН, 2019. С. 113–118.
3. Bruhns S., Haqq-Misra J. A pragmatic approach to sovereignty on Mars // Space Policy. 2016. Vol. 38. P. 57–63.
4. Gruner B.C. A new hope for international space law: incorporating nineteenth century first possession principles into the 1967 Space Treaty for the colonization of outer space in the twenty-first century // Seton Hall Law Review. 2004. Vol. 35. P. 298–357.
5. Fitzmaurice J., Henderson S. On the legality of Mars colonization // Adelaide Law Review. 2019. Vol. 40. Issue 3. P. 841–856.