

UDC 341.1/8

OWNERSHIP IN OUTER SPACE

© Flicker Michaela Romana

Vienna University of Business and Economics, Vienna, Austria

e-mail: michaela.flicker@s.wu.ac.at

The ongoing development in the field of space exploration over the last decades raises interesting legal issues. In particular, in the field of the research of new technologies in space and the protection of the knowledge gained from it require relevant legal regulations. In recent times, moreover, the privatization and commercialization of space activities have played a major role. Besides the strongly pronounced governmental activities in the space¹.

The human conquest of space began in the year 1961. The Russian Yuri Gagarin was the first man to enter outer space, and on July 21, 1969, Neil Armstrong and Buzz Aldrin were the first humans to set foot on the moon. More than 500 million people followed the event on television screens at the time. To date, there have only been a total of six manned moon missions and twelve astronauts (all U.S.) who have set foot on the Earth's satellite. However, the question of Ownership in Outer Space or the Moon has not yet been clearly clarified².

Legal Fundamentals

The relevant regulations are found in five different legal treaties, two of them being particularly important: The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (so-called '*Outer Space Treaty*'; short 'OST')³ and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (so-called '*Moon Treaty*')⁴.

These are so-called 'soft law', i.e. non-binding agreements, as it is usually the case in international law, since there is no central authority to enforce the law. In international law, law enforcement is decentralized to the states and private parties are excluded⁵.

Outer Space Treaty

The international space law is assigned to the international law and contains rules about the exploration and utilization by humans. The term 'outer space' cannot be defined clearly or uniformly, which also leads to the issue of ownership⁶.

The '*Outer Space Treaty*' has been in force since 10th October 1967 and has now been ratified by 109 United Nations states, with a further 23 having signed but not yet completed ratification. Austria has been a contracting party since 1968⁷.

In Art 2 of the Outer Space Treaty, it is stated that outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, use, occupation or otherwise. Therefore, in general, outer space is a common space free of national sovereignty⁸.

According to Art 1 OST the exploration and use of outer space is equally open to all states and should be for the benefit and welfare of all mankind and Art 2 OST further states that outer space per se is not subject to any national sovereignty claims, however Art 8 OST grants state sovereignty rights such as jurisdictional power and control over space bodies and their crew members through their national registration in the state of registry and in this way allows for an extension of national rights such as patent rights⁹.

Through the territoriality according to Art 8 OST, 'extra-territorial' sovereignty rights can thus also be asserted for inventions and achievements in or on space objects according to national laws¹⁰.

The Outer Space Treaty states, for example, that the use of outer space must be peaceful and that each state is responsible for what is launched from its territory into outer space. This includes satellites, rockets, but also parts of the International Space Station ('ISS')¹¹.

'The Outer Space Treaty provides the basic framework on international space law, including the following principles:

- *the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind;*
- *outer space shall be free for exploration and use by all States;*
- *outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;*
- *States shall not place nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or station them in outer space in any other manner;*
- *the Moon and other celestial bodies shall be used exclusively for peaceful purposes;*
- *astronauts shall be regarded as the envoys of mankind;*
- *States shall be responsible for national space activities whether carried out by governmental or non-governmental entities;*
- *States shall be liable for damage caused by their space objects; and*
- *States shall avoid harmful contamination of space and celestial bodies'*¹².

Moon Agreement

In 1979 a supplementary agreement on the activities of states on the moon and other celestial bodies (the so-called '*Moon Treaty*')¹³ was drafted. Austria is a contracting party, but in total only 17 states have ratified it and another four have signed. There have been concerns, particularly from the U.S. and the other space-faring nations, that the *Moon Treaty* could restrict freedom of rights to make a profit from discovered resources¹⁴.

The so-called *Moon Treaty*¹⁵ is a failed amendment to the *Outer Space Treaty*¹⁶, and it was intended to regulate ownership of celestial bodies¹⁷.

This is because it states that the Moon belongs to all mankind, and when the *Moon Treaty* says that the Moon is the common heritage of the human species, no one may appropriate any part of it in their own name¹⁸.

Intellectual property protection and legal enforcement

There is a tension between intellectual property and outer space law to be examined. The contrasts between these two areas of law arise in particular from the clash between national laws governing the various intellectual property rights and the proverbial 'extraterrestrial' space law¹⁹.

A distinction must be made with respect to 'space objects' – such as 'space stations, satellites, and missiles, and open space'²⁰.

In this context, Art 17 of the Charter of Fundamental Rights of the European Union of 2000 plays a major role, because this article is the basis of all protective rights and norms related to intellectual property rights²¹.

Article 17 – Right to Property states:

'1. Everyone has the right to own, use, dispose of and bequeath his or her lawfully acquired possessions. No one may be deprived of his or her possessions, except in the public interest and in the cases and under the conditions provided for by law, subject to fair compensation being paid in good time for their loss. The use of property may be regulated by law in so far as is necessary for the general interest.

*2. Intellectual property shall be protected'*²².

By joining international agreements, the protection of intellectual property rights is also ensured at the international level. Within the framework of the World Intellectual Property Organization ('WIPO'), there are several treaties that have been concluded for the

protection of intellectual property. Austria has signed some of these treaties is also a party to the Agreement on Trade-Related Aspects of Intellectual Property Rights or *TRIPS Agreement*^{23,24}. Furthermore, Austria is a member of the European Patent Office, the Office of the European Union for the Registration of Trademarks and Designs²⁵.

The *TRIPS Agreement*²⁶, which came into being during the Uruguay Round of GATT²⁷ negotiations, entered into force in Austria on 6.1.1995²⁸. This agreement covers copyright, patents, trademarks, integrated circuits, and related fields of intellectual property²⁹.

The objectives of the agreement are to eliminate trade barriers and trade distortions and to make the protection of intellectual property more efficient as a result. Likewise, it should be ensured that the protection of intellectual property does not create barriers to trade³⁰.

There are currently no explicit legal provisions, which sufficiently cover the problem of intellectual property in outer space law, only for special cases such as the ISS there are norms.³¹ What is essential for intellectual property rights is in any case their territoriality, so that it is also of significant relevance in outer space law, too, is the place where the creative work was performed³².

The protection and enforcement of intellectual property rights through various acts of infringement is a complex issue, even though in some countries, such as the USA³³ and Germany³⁴, the use of a patent in outer space is protected by national patent law. In summary, however, it must be emphasized that the current protection mechanisms are protection mechanisms are only insufficient solution models³⁵.

Conclusion

In the near future the circle of spacefaring nations will expand, whereby further national systems will join and confront each other, clear regulations would avoid legal ambiguities and provide the necessary and would provide the necessary structure for the next decades of space exploration. Solution efforts, such as the establishment of a 'space constitution' or a 'space patent'³⁶ are just as welcome as the global harmonization of intellectual property rights are conceivable steps in this direction, since there are currently no clear or harmonized rules³⁷.

Notes

¹ Alexander Schultmeyer, 'Das geistige Eigentum im Weltraumrecht' [2011] *ecolex* 538, 538.

² Planet Wissen, 'Berühmte Astronauten' (11 July 2019). URL: <https://www.planet-wissen.de/technik/weltraumforschung/astronaut/astronaut-beruehmte-astronauten-100.html#aussen> (accessed 04 August 2021); The European Space Agency, 'Ich sehe die Erde! Sie ist so wunderschön! – Der erste Mensch im Weltall vor 50 Jahren: Juri Gagarin' (12 April 1961). URL: https://www.esa.int/Space_in_Member_States/Austria/Ich_sehe_die_Erde%21_Sie_ist_so_wunderschoen%21_-_Der_erste_Mensch_im_Weltraum_vor_50_Jahren_Juri_Gagarin. (accessed 04 August 2021); Christian Moser, 'Wem gehört der Mond?' [2019] *Österreichischen AnwBl* 490, 490.

³ UNO, 'Outer Space Treaty'. URL: <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html> (accessed 05 August 2021).

⁴ UNO, 'Moon Treaty'. URL: <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/intromoon-agreement.html> (accessed 05 August 2021).

⁵ Der österreichische Wirtschaftsblog, 'Das Gesetz der Galaxie' (09 November 2018). URL: <https://www.schroedingerskatze.at/weltraum-recht> (accessed 06 August 2021).

⁶ Böckstiegel in Böckstiegel (ed), *Handbuch des Weltraumrechts* (1991) 7; Schultmeyer (n 1) 538; Schladenbach, 'Schwerpunktbereich – Einführung in das Weltraumrecht' [2008] *JuS* 217, 217.

⁷ Outer Space Treaty (n 3); Moser (n 2) 490.

⁸ Art 2 OST; Schultmeyer (n 1) 538.

⁹ Art 1, 2 and 8 OST; Schultmeyer (n 1) 538.

¹⁰ Art 8 OST; Schultmeyer (n 1) 538.