

# Implications of a Proposal for Real Property Rights in Outer Space

Wayne N. White, Jr.  
[1999]

## Abstract

This author presented a paper entitled *Real Property Rights in Outer Space* at the 40<sup>th</sup> Colloquium on the Law of Outer Space, in Turin, Italy (1997). In that article, the author proposed a regime of real property rights for outer space, in the absence of territorial sovereignty. In this paper, the author discusses the goals and expected outcome of the proposed real property regime, including legal, political, military, social and economic implications. Among other things, the author concludes that the proposed regime would make international conflict less likely than a real property regime predicated upon territorial sovereignty, would promote transition of space settlements from Earth-based jurisdiction to self governance, and would promote investment in and settlement of outer space.

## Introduction

Article II of the 1967 Outer Space Treaty<sup>1</sup> prohibits national appropriation of outer space, but it does not prohibit private appropriation.<sup>2</sup> Hence, private entities may appropriate area in outer space or on a celestial body, although states may not.

Because the relationship between property and territorial sovereignty differs under common law and civil law systems, it is not immediately clear whether Article II would permit national governments to confer property rights upon private entities under their jurisdiction. The common law theory of title has its roots in feudal law. Under this theory the Crown holds the ultimate title to all lands, and the proprietary rights of the subject are explained in terms of vassalage. Thus, common law nations, which are parties to the Outer Space Treaty, cannot confer real property rights on private entities because Article II would prohibit them from claiming territorial sovereignty. Civil law, on the other hand, is derived from Roman law, which distinguishes between property and sovereignty. Under this theory it is possible for property to exist in the absence of territorial sovereignty.

Article VIII of the Outer Space Treaty requires parties to the treaty to “retain jurisdiction and control over . . . space objects on their registry . . . and over any personnel thereof, while in outer space or on a celestial body.” Article VIII confers “quasi-territorial” jurisdiction. It applies to the space facility, to a reasonable area around the facility (for safety purposes<sup>3</sup>), and to all personnel in or near the facility, irrespective of nationality. Space objects occupy locations on a first-come, first-served basis, and personnel have the right to conduct their activities without the harmful interference of other states. In addition, although entities may not claim ownership of mineral resources “in place,” once they have been removed (i.e., mined) then they are subject to ownership.<sup>4</sup>

Article VIII jurisdiction also permits the state of registry to subject its space objects and personnel to any national laws that are not in conflict with international law. This jurisdiction is limited in time, however. It ceases to exist when activity is halted— as, for example, when a space object is abandoned or returned to Earth.

Taken together, the rights conferred upon private entities under the Outer Space Treaty amount to a limited form of property rights. And, because Article VIII permits states to pass laws and regulate the activities of private entities under their jurisdiction, it is possible for states to unilaterally implement a system of limited property rights which would not constitute a violation of the provisions of the Outer Space Treaty. Because this form of limited property rights would be based upon Article VIII jurisdiction, and not territorial sovereignty, it would not violate Article II of the Outer Space Treaty, even if the state in question were a common law country.

This author proposed that the space-faring nations consider implementing such a system of limited property rights in his article *Real Property Rights in Outer Space*.<sup>5</sup> The author suggested that such states follow the example of the United States’ homesteading acts, and require private entities to maintain a facility (and/or conduct certain activities) in a fixed

location, for a specified period of time (*e.g.*, one to five years) in order to perfect property rights. The author also suggested that states which implement a property rights regime could include a reciprocity provision in their property laws, which would provide for recognition of the property rights of entities under the jurisdiction of states that enact similar property laws which also contain a reciprocity provision.

In addition, or in the alternative, such states could also negotiate, draft, ratify, and implement a multilateral treaty to coordinate property rights. Such a treaty would elaborate on the elements in Article VIII – it would define the property rights conferred under Article VIII, and provide for their recordation; it would define the term “space object,” with particular emphasis on the distinction and between space vehicles and permanently situated space facilities; it would define the term “personnel”; and it would delineate the extent of jurisdiction and control, with particular emphasis on the physical extent of safety zones, and upon the temporal duration of jurisdiction, *i.e.*, upon the period of abandonment necessary to extinguish jurisdiction.

This article discusses the legal, political, military, economic and social consequences of implementing this author’s proposal for limited real property rights, in the absence of territorial sovereignty. This article also discusses the goals we should hope to achieve by establishing an institution of real property rights for outer space.

### **Legal Implications**

Because this proposal for limited property rights is consistent with the Outer Space Treaty and other international law, it would be easy for states to implement. Both common law and civil law countries are free to unilaterally enact this form of limited property rights, without any changes in the Outer Space Treaty or other international law. If states model their laws on the U.S. homesteading acts, they will have to set up claims offices to record property claims, and to issue titles when claims are perfected. Once more than one state has implemented property rights, an international registry would seem advisable, if not necessary.

Implementing this real property regime would provide greater legal certainty to investors and entities participating in the development and settlement of outer space. Those entities will be able to look to terrestrial property law for legal precedents. National judicial systems would experience similar benefits, as judges could decide cases on the basis of established legal principles.

In this author’s opinion, however, the field of space law is sufficiently specialized that it will eventually be necessary to create specialized courts to adjudicate space disputes. In locales like Mars, it will probably be necessary to set up local courts once substantial development and settlement occurs, because delays in communicating with Earth would otherwise make judicial proceedings unacceptably cumbersome and time consuming.

Another benefit of this form of limited property rights will be competition between national legal systems and a resulting cross-fertilization of legal ideas. To a certain extent, this process is already occurring with advances in communications and the globalization of business interests on Earth. This author believes, however, that the proposed regime of limited property rights would accelerate this trend. Because the proposed property regime does not rely on territorial sovereignty, and because the safety zone jurisdiction outside facilities would be strictly limited, entities would not be claiming large areas. This means that different facilities and their safety zones could each be under the jurisdiction of a different state, and yet still be in close proximity to each other. Assuming that entities residing in and operating these facilities have frequent interaction, differences in national laws would be immediately obvious and would have a real-life impact on the entities involved. The expected result would be a demand for the most economically efficient and least restrictive laws, with the laws of other space-faring nations serving as examples.

### **Political Implications**

There are four principal reasons why the United States and the Soviet Union (and later other countries) chose to prohibit territorial sovereignty in Article II of the Outer Space Treaty: (1) to prevent conflict; (2) to ensure free access to all areas

of outer space; (3) because it would be difficult for states to delineate boundaries in outer space; and (4) to enhance national pride, prestige and influence.

This author believes that the reasons that justified the prohibition of territorial sovereignty in 1967 are still valid reasons for prohibiting territorial sovereignty in the 21<sup>st</sup> century. The entire history of Earth is one long tale of military conflict over disputed territory, or even outright seizure of territory by governments with no lawful claim to the territory in question. Permitting national claims of territorial sovereignty in Outer Space would only perpetuate that history of conflict. The modern standard for establishing territorial sovereignty is the continuous and peaceful display of state authority. Despite the word “peaceful,” this standard, as a practical matter, generally means establishing and maintaining military control over territory.

But can we afford the expense of defending territorial claims with military force? This author frequently thinks of an analogy to the board games Risk® and Monopoly®. In the game Risk®, each player amasses armies and attempts to conquer as much territory as possible by defeating the other players’ armies. The winner of the game is the player who conquers the world (or convinces the other players of the inevitability of that outcome).

In the game Monopoly®, players acquire properties, which they develop with houses and hotels, thereby earning income from the other players when they land on those properties. Some properties are worth more than others are, and the rent that the other players must pay for landing on properties varies with the quality of the property. The winner of the game is the player who obtains the most and best properties, developing those properties to earn more money than the other players do. Many people alter the rules of the game to allow players to sell and trade properties, resulting in a period of consolidation wherein the players adjust their portfolios of properties to hopefully maximize their income.

In outer space, do we want to spend our precious resources on military defense of territory, or do we want to spend our resources on research, development, and settlement? This author believes that most sane people would prefer the latter. In the real world, playing Monopoly® is clearly a better choice than playing Risk®.

The second reason for prohibiting territorial sovereignty was to ensure free access to outer space. If nations begin claiming large areas of outer space or on celestial bodies, it will prevent entities from other nations from having free access to both claimed and unclaimed areas of outer space. Because the extent of safety zone jurisdiction is very limited, free access would not be as much of an issue with limited property rights as it would with territorial sovereignty, where the areas claimed are typically much larger.

The third reason for prohibiting territorial sovereignty was because it would be difficult for states to delineate boundaries in outer space. That reasoning still applies today. While it would be difficult for nations to delineate the boundaries of territory in open space, it would be far easier to delineate the boundaries of real property claims, because the area claimed will be far smaller, and because safety zones in many cases will extend a uniform distance from a facility, in all directions.

The final reason for prohibiting territorial sovereignty was to enhance national pride, prestige and influence. The major powers were vying for the allegiance of the many new African and Asian nations at the time when they negotiated the language of Article II. These recently independent former colonies were extremely wary of “superpower imperialism.” Consequently, both the Soviet Union and the United States could expect to gain political influence and prestige should they reject territorial sovereignty and its overtones of colonialism.

Today those political views are still present in some, and perhaps many non space-faring nations. Consequently, the space-faring nations will encounter far less political opposition to a real property regime that does not include national claims of territorial sovereignty.

Most readers will be familiar with the political controversy which surrounded, and still surrounds the 1979 Moon Treaty.<sup>6</sup> That treaty provided for redistribution of income obtained from resource appropriation, requiring the

appropriating states to share the profits of such activities with non space-faring nations. The Moon Treaty also prohibited all forms of property rights.<sup>7</sup> Most space-faring nations found such provisions unacceptable.

This controversy illustrates the political differences between the space faring and non space-faring nations. Non space-faring nations fear that the space-faring nations will appropriate most or all of the best resources before they have the ability to participate in space development and settlement. In the view of this author, and apparently most of the space-faring nations, this fear is unfounded, because the resources of outer space are virtually unlimited when compared with the limited resources of Earth. Nonetheless, these attitudes prevail in the non space-faring nations, and they must be considered when evaluating a property rights regime.

Fortunately, the proposed regime of limited property rights should defuse most of the possible political opposition from the non space-faring nations. Because the Article II prohibition of territorial sovereignty remains in place, the non space-faring nations can rest assured that large areas of outer space will remain unclaimed for the foreseeable future. Furthermore, because private entities could sell outmoded or financially unsuccessful facilities, including the associated property rights, other nations would have the opportunity to purchase those facilities and property rights, even though they might not have developed space-faring technology. The limited property rights regime therefore addresses the concerns of the non space-faring nations, and even provides them with the opportunity to share in space development and settlement, while still achieving the objectives of private entities. Finally, the proposed regime should be politically acceptable to the governments of space-faring nations, because: (1) they will have the independence to enact and fine tune property legislation without seeking the approval of other nations, including non space-faring nations that have far different political views, (2) their citizens can develop and settle space without transferring any of the income from those activities to the non space-faring nations, and (3) governmental entities will have the same jurisdictional rights over facilities and safety zones that private entities do.

### **Military and Security Implications**

The military implications of the proposed real property regime are fairly obvious in light of the preceding discussion regarding prevention of conflict in outer space. If the Article II prohibition of territorial sovereignty remains in place, nations will not have to exert military control over large areas in order to perfect territorial claims. And, wars over conflicting territorial claims will not occur as they did when European nations settled and developed the North and South American continents.

The military, and possibly other security forces, will have a role, however. Once mining and industrial development takes place, it may be necessary for the military to be available to prevent others from stealing mining claims, sabotaging competitors' facilities, etc. In the early stages of development and settlement, entities are likely to cluster their facilities in close proximity for safety and economic reasons. The military would therefore have a fairly easy time defending those facilities, in a manner similar to Army forts which defended nearby settlements while the American West was being settled. Once local governments are established and have defensive capability, the need for Earth's military forces will diminish.

Another concern is international security. Unfortunately, the threat of terrorist activity is always a possibility. To prevent such activity, states which implement the limited property regime will undoubtedly want to provide in any legislation that the government has the right to prohibit sales of facilities and property rights to nations which present any sort of significant security risk.

### **Economic Implications**

The institution of real property rights is the most efficient manner of administering the territory occupied by private entities. The proposed real property regime will allow a free market to develop in property rights. Commercial entities that want to buy more technologically advanced facilities can sell their facility and buy a new one. Commercial entities that engage in an unsuccessful venture will still have some residual value remaining in their facility and property rights. Such entities could then sell their facility and property rights to recoup some of their investment.

Because the proposed regime will permit judges, lawyers and legislators to look to terrestrial property law for precedents, private entities will enter into space ventures with greater certainty about their legal rights, and the outcome of any potential legal disputes. Real property rights will thereby encourage private space development and settlement, at very little cost to the taxpayers.

### **Social Implications**

Hopefully, the proposed property regime will encourage peaceful settlement and commercial development in the same way that homesteading encouraged people to relocate to the American West. This author hopes that the proposed regime will also foster international cooperation and understanding, once the non-space-faring nations actually participate in space activities and realize financial, technological and social benefits from those activities.

Limited real property rights will also help ease the transition to self-governance in outer space. Once a space community becomes self-governing, it will be a simple process to convert limited property rights to full-fledged property rights.

And Earth nations should realize that it is in their best interests to allow communities to become self-governing as soon as they are technologically, economically and socially ready. Earth governments should learn the lessons of history so that they do not repeat the same mistakes. England was ultimately unsuccessful in governing and taxing the American colonies, and Earth governments should not expect any more success, should they choose to continue governing entities after they have become capable of self-governance.

Governing and taxing entities from afar is neither practical nor good policy. It alienates and hinders brave and independent pioneers who risk their lives in a hostile environment. Earth nations have a lot more to gain from trade with space-based entities than they will from micro managing and taxing them. The principles of freedom and self-determination are just as valid in outer space as they are on Earth, and we should expect our governments to adhere to those principles.

### **Conclusion**

This author has proposed a regime of limited property rights in the absence of territorial sovereignty. The proposed regime is consistent with the principles and provisions of the Outer Space Treaty and other generally accepted principles of international law. Accordingly, states that want to enact real property laws are free to do so at any time, without seeking the approval of other states.

Implementing this regime would provide greater legal certainty to investors and entities participating in development and settlement activities, because terrestrial property law would provide legal precedents. The regime would also foster competition between national legal systems and cross-fertilization of legal ideas.

The limited property rights proposed by this author are based upon the jurisdiction conferred by Article VIII of the Outer Space Treaty, and not territorial sovereignty, which is prohibited by Article II of the Outer Space Treaty. The author believes that the reasons for prohibiting territorial sovereignty are still valid today, and recommends that states enact property laws without disturbing the prohibition against territorial sovereignty. Space-faring nations simply cannot afford the cost of defending territorial claims, and the possible military conflicts that might result from such claims. Keeping the prohibition in place will also eliminate many of the political objections to a real property regime, and increase the likelihood that the regime will be accepted by other nations.

The real property regime is economically efficient, and will allow non-space-faring nations to participate in space development and settlement. The regime will allow private entities to sell outmoded or financially unsuccessful facilities to other entities or governments, including the associated property rights, subject to any security restrictions imposed by the country exercising jurisdiction over the facility. This arrangement would benefit both the selling entity and the purchasing entity.

Finally, the regime will help ease the transition to self-governance in outer space. Once a space community becomes self-governing, it will be a simple process to convert limited property rights to full-fledged property rights. Earth governments should allow and encourage space communities to become self-governing as soon as they are economically self-supporting and willing to govern themselves. The proposed property regime will help facilitate that goal.

### References

1. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies, *done* Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 205 (*entered into force* Oct. 10, 1967).
2. Gorove, *Interpreting Article II of the Outer Space Treaty*, 37 *FORDHAM L. REV.* 349, 351 (1969).
3. *E.g.*, Rothblatt, *State Jurisdiction and control in Outer Space, Proceedings, Twenty Sixth Colloquium On The Law Of Outer Space*, at 135, 136 (IISL, 1984).
4. *E.g.*, Cepelka & Gilmore, *Application of General International Law in Outer Space*, 36 *J. AIR L. & COM.* 30, 38-39 (1970).
5. White, *Real Property Rights in Outer Space, Proceedings, Fortieth Colloquium on the Law of Outer Space*, at 370 (IISL, 1998).
6. Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 1363 U.N.T.S. 3, *adopted* 5 December 1979, *entered into force* 11 July 1984.
7. *Id.*, at Article 11.