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PROPOSAL FOR A MULTILATERAL TREATY REGARDING JURISDICTION AND REAL PROPERTY RIGHTS IN OUTER SPACE

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Introduction

At the Turin Colloquium in 1997, this author presented a paper entitled *Real Property Rights in Outer Space*.¹ That paper proposed that interested states establish a form of property rights predicated upon jurisdiction rather than territorial sovereignty, which would be consistent with the terms of the 1967 Outer Space Treaty.² At the Amsterdam Colloquium in 1999, the author presented a paper entitled *Implications of a Proposal for Real Property Rights in Outer Space*,³ which further explained the author's ideas. This paper will set forth the text of a treaty which would implement the author's proposal. The proposed treaty would also further define the jurisdiction conferred under Article VIII of the Outer Space Treaty, with the objective of facilitating the peaceful settlement and development of outer space.

Proposed Treaty

The author proposes that interested states and space law commentators consider the

following draft treaty as a beginning point for discussion and further understanding of the author's proposal for real property rights in outer space:

CONVENTION ON JURISDICTION AND REAL PROPERTY RIGHTS IN OUTER SPACE

PREAMBLE

Recognizing the common interest of all mankind in furthering the exploration, settlement and economic development of outer space for peaceful purposes,

Noting the great importance of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, which is commonly known as the Outer Space Treaty, and which

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,

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or by any other means, and which

Provides that a State Party to the Treaty on whose registry an object launched into Outer Space is carried shall retain jurisdiction and control over such Object, and over any personnel thereof, while in outer space or on a celestial body,

Recognizing that the Outer Space Treaty permits exploitation and private appropriation of resources,

Desiring to further define the extent of States' jurisdiction with respect to outer space and celestial bodies, and

Desiring to protect the interests of those who risk their lives and their investments in the settlement and economic development of outer space, including the Moon and other celestial bodies,

Have agreed on the following:

DEFINITIONS

1. For the purposes of this Convention:

(a) the term "celestial bodies" means all natural bodies in the Universe other than the planet Earth.

(b) the term "outer space" means all areas other than celestial bodies which are _____ kilometers or more above sea-level on the planet Earth.

(c) the term "space facility" means a physical structure or device located in outer space or on a celestial body which remains in one location and is used for any peaceful purpose. A structure or device which is

located in outer space and orbits around a celestial body or a point in space shall be considered as "remaining in one location" so long as it remains within certain orbital parameters, as set forth below;

(d) the term "residential space facility" means a structure located in outer space or on a celestial body whose primary purpose is to provide shelter, life support and living space for natural persons.

(e) the term "scientific space facility" means a structure located in outer space or on a celestial body whose primary purpose is to further the purposes of scientific investigation and/or exploration of the Universe.

(f) the term "commercial space facility" means a structure located in outer space or on a celestial body whose primary purpose is the sale of goods or services to other entities.

(g) the term "industrial space facility" means a structure located in outer space or on a celestial body whose primary purpose is the production of products for use or consumption by other entities.

(h) the term "mining space facility" means a structure located in outer space or on a celestial body whose primary purpose is to facilitate the removal and processing of material resources.

(i) the term "space vehicle" means a device which is designed to transport people and material: (i) from celestial bodies to outer space, (ii) through outer space, (iii) from one point to another on the surface of a celestial body, (iv) from outer space to the

surface of a celestial body; or any combination thereof.

(j) the term “space object” means any device or structure which does not remain in one location, or a space facility or a space vehicle, as defined above;

(k) the term “State of registry” means a State on whose registry a space object is carried;

(l) the term “Owner” means the legal owner(s) as defined and determined by any treaties, laws and regulations of the State of registry;

(m) the term “foreign national” means a citizen of a State other than the State of registry;

(n) the term “abandonment” means (i) cessation of regular or periodical use of a structure, or (ii) cessation of operation and/or loss of control of a device without taking prompt, overt action to re-establish operation and/or control over said device, or (iii) an Owner’s express public declaration that the Owner has abandoned a structure or device;

(o) the term “Geosynchronous Orbit” means the orbit described by the following parameters: period 1436.1 minutes, inclination 0°, Apogee = Perogee = 35,786 Kilometers.

JURISDICTION

2. A State Party to this Treaty shall retain jurisdiction and control over: (i) the space objects on its registry, (ii) a safety zone of 500 meters around the residential or

scientific space facilities on its registry, (iii) a safety zone of 1000 meters around commercial, industrial and mining facilities on its registry, and (iv) any natural persons within said space objects and safety zones. A State Party to this Treaty shall exercise jurisdiction and control over space objects on other States’ registries which are within its safety zones, and the natural persons within said objects, only to the extent necessary to protect the safety of space objects and natural persons.

3. States may enact and enforce laws and regulations which govern their citizens while they are in outer space, and space objects on their registry, so long as said laws and regulations do not violate any treaties or other agreements to which the State is a party, or any principles of customary or general international law.

4. Entities may occupy and use locations in outer space on a first-come, first-served basis, so long as said occupation and use will not interfere with other entities activities.

5. The Owner of a newly constructed space object shall promptly register said space object with an appropriate State in accordance with any treaties, laws and regulations which govern the Owner.

6. Owners of space objects may transfer ownership of their space objects at any time, so long as they comply with any applicable treaties, laws and regulations of the State of registry. Any Owner who or which transfers ownership of a space object shall promptly notify the State of registry that ownership of the space object has been transferred, and shall provide said State with the information

necessary to identify and contact the purchaser.

7. The purchaser of a space object shall promptly register said object with an appropriate State in accordance with any treaties, laws and regulations which govern the purchaser. In the event that the purchaser registers the space object with a State which is different from the State of registry of the seller of the space object, the purchaser shall promptly notify the seller's State of registry that registration of the object has been transferred, and the identity of the State on whose registry the space object will be carried in the future.

8. The State of registry shall retain jurisdiction and control over a space object after the Owner of a space object abandons said space object, and until such time as an entity either purchases or otherwise legally assumes control and/or occupation of the space object and registers said object with another State.

9. Abandonment of a space object by its Owner shall not negate or affect any international liability to which the State of registry may be subject, pursuant to the terms of the Outer Space Treaty, the Convention on International Liability for Damage Caused by Space Objects,⁴ general principles of international law, customary international law, or any other applicable treaties, laws or regulations.

10. In the event that a natural person allegedly commits an act in a space object or in a safety zone which constitutes a crime under the laws of the State of registry, and said natural person is a foreign national, the State of registry shall consult with the

foreign national's government. If the foreign national's government does not provide assurances that it will prosecute the natural person on charges commensurate to those which are justified under the laws and regulations of the State of registry, then the State of registry may prosecute the natural person in its court(s) pursuant to its own laws and procedures.

REAL PROPERTY RIGHTS

11. Private, non-governmental Owners who or which inhabit, maintain and/or operate a space facility for a period of at least one year shall be entitled to formal recognition and registration of the following rights, which shall be designated "real property rights":

(a) the right to exclude natural persons and legal entities from the space facility and its related safety zone;

(b) the right to be free of interference from others;

(c) the right to control the activities of all natural persons and legal entities within the space facility and its related safety zone;

(d) the right to direct the activities of space vehicles and the natural persons inside such vehicles within the space facility and its related safety zone;

(e) the exclusive right to appropriate resources within the space facility and its related safety zone;

(f) the right to sell real property rights to other natural persons or legal entities.

12. The real property rights which States confer upon Owners shall be subject to the following limitations:

(a) If the Owner of a space facility stops using the space facility for peaceful purposes, the Owner's real property rights shall immediately terminate;

(b) if the Owner of a space facility abandons the space facility for a period of 2 years or more, the Owner's real property rights shall immediately terminate;

(c) if the Owner of a space facility which is in orbit around a celestial body or point in space allows the space facility to deviate, for a period of one month or more, more than ___% from any of the orbital parameters of period, inclination, apogee and perogee which are listed in the real property rights registry, the real property rights shall immediately terminate;

(d) Owners may not establish property rights over an area which would prevent other natural persons or legal entities from having free access to outer space and celestial bodies.

(e) the Owner of a space facility shall only have the right to direct the activities of space vehicles which are carried on the registry of a State other than the State of registry of the space facility, and the natural persons inside such vehicles, to the extent necessary to protect the safety of other space objects and natural persons within the space facility and its related safety zone;

(f) Owners shall not have the right to exclude from the space facility and its related safety zone natural persons who come to

inspect the space facility, on the basis of reciprocity, pursuant to Article XII of the Outer Space Treaty;

(g) Any State Party to this Treaty may terminate the property rights of an Owner whose space facility is carried on said State's registry, provided said State terminates the property rights pursuant to duly enacted laws or regulations, or duly ratified treaties, and the Owner has received due process of law including the right to be heard;

13. Each State Party to this Treaty shall establish a registry of real property rights, and shall enact laws and, if deemed necessary, regulations which set forth the procedures which Owners of space facilities must follow in order to establish, register, and obtain documentation of real property rights. States shall require Owners of a space facilities which orbit around celestial bodies or points in space to provide the registry with the orbital parameters of the space facility, including period, inclination, apogee and perogee. States' registries of real property rights shall be openly and easily available to other States and to the general public, free of charge.

14. States Party to this Treaty shall not confer real property rights upon an Owner which would prevent other natural persons or legal entities from having free access to outer space or celestial bodies.

15. Real property rights which States confer pursuant to this Treaty shall not provide the basis for any claims of territorial sovereignty. States are prohibited from exercising territorial sovereignty in outer space and on celestial bodies.

16. States Party to this Treaty are prohibited from conferring property rights upon Owners of space facilities which are located in the Geosynchronous Orbit.

RESOLUTION OF LEGAL ISSUES

17. In order to provide Owners with greater certainty and less risk when legal issues arise, and to permit Owners to avoid legal disputes whenever possible, States Party to this Treaty are encouraged to resolve legal issues which arise in outer space or on celestial bodies by first considering analogous terrestrial treaties, laws, regulations and case law precedents before enacting new national laws. For example:

(a) resolve legal issues regarding real property rights by first looking to terrestrial real property law;

(b) resolve legal issues regarding space vehicles which travel in outer space by first looking to terrestrial maritime law;

(c) resolve legal issues regarding space vehicles which travel only on the surface of celestial bodies by first looking to the law governing terrestrial ground transportation;

(d) resolve legal issues regarding overflight of space facilities by first looking to terrestrial air law;

(e) resolve legal issues regarding safety zones by first looking to terrestrial law which governs safety zones around facilities on continental shelves;

(f) resolve legal issues regarding criminal jurisdiction by first looking to

terrestrial laws which govern international criminal jurisdiction, extradition, and conflict of laws;

(g) resolve legal issues regarding personal injury and damage to space objects by first looking to terrestrial laws which govern those issues.

CONSULTATION

18. States Party to the Treaty shall confer 5 years from the date this Convention enters into force, and every 5 years thereafter, to determine whether the following quantitative provisions of this Treaty need to be revised pursuant to Treaty amendment:

(a) the physical extent of safety zones for residential and scientific, and commercial, industrial and mining space facilities;

(b) the period of inhabitation, operation or maintenance of a space facility which is necessary to establish and register real property rights;

(c) the period of abandonment of a space facility necessary to terminate real property rights;

(d) the percentage of deviation from orbital parameters necessary to terminate real property rights.

19. The Parties may consult via a secure form of electronic communication.

20. In the event that a simple majority agree that one or more of the quantitative provisions need to be revised, the Parties shall convene a meeting to determine the

revised quantitative figures. Each State Party to the Treaty shall be permitted to send one voting representative to such a meeting. After full and complete discussion of relevant facts and issues, the States' voting representatives shall determine the revised quantitative figures by simple majority vote. Each State shall bear the cost of sending their representative(s) to such a meeting. The States participating in the meeting shall equally share the cost of the meeting, regardless of which State hosts the meeting, unless the host State voluntarily agrees to bear such costs.

21. In the event that States' representatives vote to change one or more quantitative provisions of this Treaty, such changes shall take effect one year from the date of the vote, or at such later time as the parties may agree. Any changes in the quantitative provisions may serve to increase the rights of entities that already have property rights which have been conferred in accordance with this Treaty, but such changes shall not under any circumstances diminish or abrogate the rights of entities that own property rights on the date when States' representatives vote to change the quantitative provisions.

DISPUTE RESOLUTION

22. In the event of a dispute between two or more Owners of space facilities who have registered real property rights with different States pursuant to this Treaty, the Owners are first encouraged to seek resolution of their disputes through alternative dispute resolution methods such as international conciliation, mediation or arbitration. If such Owners are unwilling to or cannot resolve their disputes through private dispute

resolution, the Owners may ask their respective States of registry to convene an arbitration panel to resolve the dispute. Each State of registry shall select one arbitrator. Those arbitrators shall then select one or two additional arbitrators by simple majority vote, such that the total number of arbitrators constitutes an uneven number. The arbitration panel shall then hear the facts and issues presented by the Owners and their legal counsel and shall decide the outcome of the dispute within a reasonable time.

GENERAL PROVISIONS

23. This Treaty shall not provide the basis for the formation of any organization, either temporary or permanent, which would administer the terms of the Treaty and/or determine the quantitative figures set forth in the Treaty. It is the intention of States Party to this Treaty that the costs of administering the real property regime shall always remain minimal, so that no State will be prevented from becoming a party to the Treaty because of prohibitive costs.

24. This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with article 23 of this Convention may accede to it at any time.

25. This Treaty shall be subject to ratification by signatory States.

26. This Treaty shall enter into force upon the deposit of instruments of ratification by two States.

DISCUSSION AND COMMENT

Preamble, paragraph 5:

Space law commentators seem to agree that private entities can appropriate materials removed from celestial bodies and outer space.⁵

Preamble, paragraph 7:

Space law must acknowledge and accommodate the increasing role of private entities in space activities.

Paragraph 1(b):

A treaty on jurisdiction is an appropriate place to finally resolve the issue of delimitation of outer space.

Paragraph 1(c):

The lagrangian points which are located between the Earth and the Moon are examples of equilibrium points in space around which humans may someday orbit space objects.

Paragraph 1(l):

The term "Owner" would include natural persons, sole proprietorships, partnerships, limited liability companies, corporations, non-profit and not-for-profit organizations, and governmental entities.

Paragraph 11:

The terms of this Treaty in the section entitled "JURISDICTION" apply to all Owners, including governmental entities; the terms of this Treaty in the section entitled

"REAL PROPERTY RIGHTS" apply only to private, non-governmental entities. Pursuant to Article VIII of the Outer Space Treaty, governmental entities will still have all of the same rights as private Owners, but in a less formal sense. States are prohibited by Article II of the Outer Space Treaty from appropriating areas of outer space and celestial bodies, and therefore, in the author's opinion, cannot confer real property rights on governmental entities.

Paragraph 11(e):

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.⁶

Paragraph 12(a):

See Article IV of the Outer Space Treaty, which says, among other things: "The moon and other celestial bodies shall be used by all States Party to the Treaty exclusively for peaceful purposes."

Paragraph 12(d):

See Article I of the Outer Space Treaty, which says, among other things: "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 the basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies."

Paragraph 12(g):

The term “due process of law” is a term with a very well defined meaning under United States law. The author assumes that most other nations' laws have a similar concept, although the term “due process of law” may not be the language which will be clearly understood by the majority of States. The author is therefore open to suggestions regarding better terminology.

Paragraph 16:

The Geosynchronous orbit has become crowded with communications satellites in certain areas, and presents unique technical problems with respect to satellite spacing and radio frequency interference. The International Telecommunications Union addresses these issues by allocating orbital positions and frequencies. Therefore real property rights are inappropriate in this orbit.

CONCLUSION

States must do everything they can to encourage space development and settlement. One way they can do that is by protecting the interests of those who risk their lives and investments in outer space. Continuing private investment in space development will ultimately allow us to move some polluting industries off the planet, thereby improving our quality of life. And settlement of outer space will ensure the survival of our species in the event of a global catastrophe. This draft treaty encourages development and settlement, while balancing the interests of large States and small States, developed and undeveloped States, and governmental and private interests. The author hopes that States will

agree, and enter into a treaty substantially in the form of this draft treaty.

Endnotes

1. White, *Real Property Rights in Outer Space*, PROCEEDINGS, FORTIETH COLLOQUIUM ON THE LAW OF OUTER SPACE, at 370 (IISL, 1998).
2. 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).
3. White, *Implications of a Proposal for Real Property Rights in Outer Space*, PROCEEDINGS, FORTY-SECOND COLLOQUIUM ON THE LAW OF OUTER SPACE, at ____ (IISL, 2000).
4. Convention on International Liability for Damage Caused by Space Objects, *done* Mar. 29, 1972, 24 U.S.T. 2389, T.I.A.S. 7762, 961 U.N.T.S. 187 (*entered into force* Oct. 9, 1973).
5. *E.g.*, Christol, *The Common Heritage of Mankind Provision in the 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies*, 14 INT'L LAW. 429, 471 (1980).
6. Cepelka & Gilmore, *Application of General International Law in Outer Space*, 36 J. AIR L. & COM. 30, 38-39 (1970); Christol, *supra* note 4.