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ASTRO LAW AS COMMON LAW EXTENDED INTO THE OUTER SPACE TERRITORY

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Abstract

International space treaties haven't been amended or supplemented for 25 years. As "space development" becomes feasible, (per the Moon Treaty, article 11, paragraph 5), a new legal regime is called for by the United Nations applicable to outer space. This regime should clarify that civil, criminal, domestic relations, administrative, and environmental laws applicable to individuals who settle in space are also part of the legal mosaic covered in that new regime. Perhaps that call for a new regime should include common law as extended into space to be known as astro law. If so, it is very relevant and material to define astro law as that part of the new regime that exists as a common law of space law, a body of precedent that grows and adjusts in this new venue according to the needs of settlers. The common law is approaching a thousand years of tradition. It was extended from England to America during the 1700s and extended to all extraterritorial courts effective in 1850 A.D. and by convention to outer space in 2000 A.D. Its prognosis as astro law in space is discussed in detail.

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Introduction

Astro Law Historically

Professor George S. Robinson III and Harold M. White, Jr., introduced us to the term "astro law." This appears frequently in their seminal book, The Envoys of Mankind.

> *"The concept of planetary or human citizenship must of necessity be embodied in what some space lawyers are beginning to refer to as astrolaw, the body of law that governs human relations in space, principles of social order flowing from the unique natural requirements of human space existence."* 1

This definition is refined by these authors recognizing the need and likelihood that astro law would take generations of evolution to represent truly space-oriented law. It would begin as some sort of Earth-made rule of law. This character of the genera is described prophetically:

> *"For these reasons, legal systems are subject to the same evolutionary tendencies we have been discussing—resistance to change, long periods of stability, then acceleration, perturbation, and either dissolution or complexification and transformation. Such transformation, however, requires that the very paradigms upon which the previous systems were based be superceded by new ones that are more holistic, more ecumenical, and more widely accepted."* 2

The common law is marked from 1066 AD when the Norman Conquest of the British Isle was recognized as completed. It featured not only the King's Bench in London and lower courts in stately manors around the island, but, also, the tolerance of people's courts. These mimicked the King's court in procedures but focused on equitable relief not permitted in the legal system that was headed by the King, (or Queen). Both systems rested on solving "cases in controversy" where one person disagreed with another person over genuine problems. Solutions were recorded and precedent developed.

The system evolved into a comprehensive and effective set of rules. Some rules were not at all logical and others did not appear to be fair. However, evaluation of the law of the commoners in England was clearly the result of experience whether or not logical or fair. 3

In space settlements on the Moon, on Mars, and in cycler orbits, more will be involved than the experience of settlers. As reflected below under the title, "Laws that Impact Space," it is clear that competing nations will maintain a legal hold on space policy and future rules of law. Added to that will be the interests of investors, workers, tourists, and developers. Therefore, the evolution of astro law will be more complex than that encountered 900 years ago in England. Nevertheless, a similar sort of case by case experience will be the bottom of this process.

Dr. Philip R. Harris predicts a widespread cooperation, and he sees it as necessary. The common law in outer space will be evolved by many interests:

> *"The high frontier prospects in the twenty first century are only dimly perceived, as humankind struggles like infants to leave our*

cradle, Earth. For human enterprise in space to succeed and flourish, synergy or cooperation becomes the key ingredient between public and private sectors, between planners and policy makers, between professionals and the technicians, as well as among organizations and nations." [4]

Laws That Impact Space Law

Direct Impact

There are five outer space treaties that directly impact space law and policy. These were all sponsored by the United Nations and they obtained the prior approval of the UN Committee on Peaceful Uses of Outer Space, (COPUOS). Of these, the Outer Space Treaty, (OST), of 1967 is respected as our constitution for outer space. On the other hand, the Moon Treaty of 1979 is least respected because only France signed it of all the space-oriented nations. America and Russia and the space-faring community passed on signing it because the concept of *common heritage of mankind* was introduced. As a group, however, these five treaties represent the starting point for space law and policy. [5]

The "common heritage of mankind" and the treaty burden of "benefit sharing" represent the hardest and most controversial legal issues that haunt space lawyers. The "common heritage" wording reappears in the Law of the Sea Treaty of 1989. It is defined as requiring an actual sharing of proceeds generated by commercial activity at the public property site, all nations to manage the site, all to have access, and for peaceful purposes only. The term has been applied to activities of the Deep Seabed Authority successfully because America manages it. However common heritage principles in outer space development are not acceptable, unless they are modified. [6]

The problem of benefit sharing has a similar set of legal requirements, all focused on sharing profits with developing nations that are not involved in outer space at all. The welfare program was adopted unanimously by UN General Assembly resolution in 1966 and was mentioned in the Outer Space Treaty, 1967, as a burden on states. Another and more recent UN General Assembly resolution was adopted to recast benefit sharing as just another way to effect international cooperation, the primary directive of that 1967 constitution level treaty. [7]

This highlights another and larger consequence of ambiguity in space regulation: "soft law proliferation": Space lawyers and policy makers have conflicting ambiguities. In this case the burden of benefit sharing was deemed a good idea in 1967 and a bad idea in 1996. *In situ* benefit sharing may be a good idea in the future, (where nations must appear in space to participate), but there is no legal system in place to ever sort this out. [8]

As summarized by a leading space law litigator in 2005:

"Both the OST and the Moon Treaty have Proven to be an unworkable foundation for the creation of a usable property rights regime in space given their ambiguity and lack of support..." [9]

Indirect Impact

In 2002, Professor Ved Nanda of the University of Denver Law School, Department of International Law, spoke at the National Space Society

Convention as an advocate of establishing property rights in space resources. His thesis was that this void could be solved by borrowing policies from other international treaties, organizations, and practices. This same thesis was advocated by space law litigator Rosanna Sattler at the University of Chicago Law School Symposium: Issues in Space Law, 2005. [10]

These scholars and others have referred us to the following five kinds of sources for building a legal regime for space, particularly in reference to the creation of property rights for settlers in space and on space resources:

1. **ITU (International Telecommunications Union).** It has the important task of administering property rights to the geostationary orbital property among nations. Some lessons may be learned on how international procedures result in awarding such rights by license.

2. **The Antarctic Treaty System** consists of four complex agreements commencing in 1959 and ending in 1980. The paradigm is to declare no private property in real estate, but to feature use and research rights to admitted nations. Research must be the principle activity. The system is now managed by 26 "consultative parties" who vote annually and continue to demonstrate their interest in Antarctica by carrying out substantial scientific activity. Observer nations are permitted to attend its session but cannot vote.

3. **UN Convention on the Law of the Sea** was created by the UN in 1982 and signed by the USA in 1994, but never ratified by the senate. It is a common heritage of mankind legal structure, but it utilizes a system of licensing rights to mine sectors of the seabed, a public property, (but not a monument). The USA also operated a similar Seabed Authority by Congressional Act of 1982.

4. **International Space Station (ISS).** The ISS is governed by an international treaty signed January 29, 1988, between the United States, Russia, Canada, Japan, and Europe known as the ISS Intergovernmental Agreement (IGA), which furnishes the framework for design, development, operation, and utilization of a permanently inhabited civil Space Station for peaceful purposes. Here the country that owns a portion of ISS retains legal control of it, and of the crew. For example, an invention made in the Japanese quadrant is subject to Japan's patent law. Because ISS is 100 percent space object, (a manmade structure in space), its rules may not impact the space resources problem, (natural and indigenous resources in space).

5. **IGA (Intergovernmental Agreement).** NASA administers the rights and obligations of all who utilize the ISS by a complex system of agreements and Memorandum of Understanding. These treaty level subject matters are not treated as treaties and do not have any treaty level enabling act on the subject of space resources or space objects, except Article VIII of the Outer Space Treaty as to space objects only. This model has been cited as having potential future property rights administered in space vessels and on space resources. [11]

Common Law Extended

The "Void" Problem

There has been no effort, except one (see below), to create any venue-wide rule of law or space venue governance paradigm for settlers, workers, and developers. Space has been viewed as not a territory and, therefore, not capable of *in rem* governance. No reason has been sited for this except the admonitions of the Outer Space Treaty:

> *"Article II: 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."*

The scope, meaning, and legal enforceability of this has been questioned as not capable of literal construction. For example, if settlers ordain a town council on Mars, there would be no national appropriation of anything and Article II would not be deemed to sabotage the town.

The treaty cannot mean to force a void of all legal structures in space and thereby force chaos in the premises. That would cause conflict and lead to star wars. A space governance structure that is not a national appropriation, based on a citizen movement alone, and structured as a trusteeship for the benefit of all humankind, should be welcomed by all nations and all competing interests. At common law, the trust estate can be impressed on the king's title and in astro law, as we will see, it is available to be maintained on space resources. 12

The common law commencing circa 1100 A.D. in England, as then extended to America and each of its states during the 1700s, and as extended to its extraterritorial courts by Congress in 1850 A.D., represents a cable of citizen level justice. The next practical step is to have that system in outer space for individuals who live and work in outer space.

The Denver Convention

Commencing in August of 1999 and ending on August 4, 2000, United Societies in Space conducted the internationally noticed Count Down Conference No. 1, also billed as the "Denver Space Governance Convention." It was held at the University of Denver Law School and hosted by Professor Ved Nanda of the International Law Center of that school. The organic documents produced at that Convention were published August 4, 2000, their effective date: This was called the Regency of United Societies in Space and its Constitution, all now known as the International Space Development Authority Corporation, (ISDAC). [13] [14]

Article III, Section 4, was crafted by the designers over a five-year series of committee meetings and conferences, along with the rest of the documents. It extended the common law from the United States of America into outer space at a cutoff date of August 4, 2000 A.D. Here is that official wording:

> *"Section 4. RULE OF LAW. The Common Law shall be utilized by the Courts as extended by the Convention to outer space. The rule of law shall therefore include treaty provisions, international law, Statutes of the Council of Regents, and the Common Law*

to be fit where all of the others are silent, in conflict, or referred to in fact or by implication by those direct legislative regimes. The Common Law is defined as the Corpus Juris Secundum as it reads on August 4, 2000, having developed in England for 1,000 years, having been extended to America effective [during the 1700s], and having been extended by Congress to all extraterritorial Courts in 1850. [The Regency and ISDAC] shall be guided exclusively by this Rule of Law as so determined and not otherwise.

"Section 5. SETTLERS RIGHTS. That the Supreme Court of the Regency shall apply the foregoing standards of law and equity with full balance and legal concern for the individual free person as memorialized in the UNITED NATIONS UNIVERSAL DECLARATION OF HUMAN RIGHTS, dated 12/10/1948, which is incorporated herein as Exhibit B. The first 20 paragraphs are deemed inalienable rights of settlers."

With this basic legal structure asserted by the 50 Regents and hearing no objection from the UN nor any member nation, these are basic building blocks in place. The following legal and equitable tenants are applicable in outer space as a result. [15]

Property at Common Law

What Estates Don't Work

In outer space it is clear that title by fee simple absolute will not work in space resources. By treaty all such resources off-Earth are the common heritage of mankind and treated legally as public property, (but not the same as monuments). The fee simple absolute is excluded from consideration because for 900 plus years it has been defined as:

> *"Fee Simple: (a). Definition. A fee simple estate is one by which a tenant holds lands, tenements, or heriditaments to himself and his heirs, forever. (b) A fee simple estate is the greatest estate a person can possess in landed property: an absolute estate in perpetuity.* [16]

An acre on the Moon is public property so it cannot be converted unilaterally to private property and be held as an absolute estate in perpetuity.

Common Law Estates Do Work

The history of the common law reveal that at least four common law estates rest on top of superior titles of the king without derogating from those legal estates. These four are the lease, the easement, the mortgage, and the trust estates. During the development of common law from 1100 AD in England and since 1776 in America and since 1850 in America's extraterritorial courts, these estates were recognized as the law of the land unless modified specifically by Parliament in England or Congress/state legislation in America. Since August 4, 2000, they also extend to outer space governance. [17]

These estates are denominated inferior estates at common law because they are temporary, terminable, limited, and equitable only. The underlying legal title, either to the king, another person, or to the UN as beneficiary of public property in space, is not legally diminished by these titles according to

900 years of common law rulings. Notwithstanding their legal sufficiency as inferior, they are in common use worldwide, particularly the lease.

Common Law Torts

What Law Governs

The general rule is expressed in *Corpus Juris Secundum*:

> *24: "In General: As to transitory torts, the law of the place where the injury is occasioned or inflicted governs in respect of the right of action, and the law of the forum as to matters pertaining to remedies.*
>
> *25: "Existence and Extent of Liability: The law of the place where the act or omission, claimed as the basis of tort, occurs determines the existence of a tort; and generally the locus delecti is the place where the last event necessary to make the actor liable occurs."* [18]

Because of this 900-year-old rule of law regarding torts, outer space venue torts need to be litigated in space and near the venue of occurrence. However, without any law of torts existent in space venues outside of a nations space vessel, and without a local court system in and for space, redress of wrongs is practically impossible.

Tort law covers a very wide range of conduct. It may be called assault, battery, trespass, interference with contract, libel, slander, slander and/or derogation of title, negligence, malpractice, false 'imprisonment, wrongful death, money had and received, theft, and more. As new cases and new circumstances come forward in space settlements, this category of common law will adjust to astro law most readily.

Torts Defined

The textbook definitions of tort law are broad enough to encompass these new circumstances: The elemental definitions of TORT are set forth in *Corpus Juris Secundum* as follows:

> *6. "Necessity for Existence. An essential element of tort liability is the existence of a duty imposed in favor of the person injured and against the person whose conduct produces the injury."* [19]

The novel types of new duties and the wide range of ways to breach those new duties in outer space settlements must be sorted out, case by case. The ISDAC court is expected to deal with such lawsuits among settlers. It will also handle tort suits against governments, corporations, and the individuals. In these cases the defense of governmental immunity will become at issue because all corporations and individuals currently in space are agents of a government.

Effective after August 4, 2000 A.D., the entire common law was extended from America to space. The cutoff date was August 4, 2000 A.D., per the Denver Convention on Space Governance. This document is reported in the ISDAC official record: *Space Governance Journal.* [20]

Torts are now cognizable in outer space on a venue-wide basis. The law of contracts grew out of tort law as a trespass on the case. Contract law then grew much more quickly and it is said to have eaten its mother, trespass on the case, which went extinct.

Contracts

What Law Governs

The general rule is that a contract is enforceable where it is made or intended to be performed, unless the contract changes this plus the international rules of comity. [21]

As development of outer space progresses over a thousand year estimated time to completion, millions of contracts will be made here on Earth and at various venues in outer space. If on Earth, then the usual rules will apply and dictate which state or federal court has venue and what laws will apply. If made on the Moon, then venue is on the Moon and outer space law applies because the common law of contract was extended to outer space. This occurred at the cutoff date of August 4, 2000 A.D. [22]

The formal requirements of a contract on the Moon are now the same as in America on that cutoff date. Here they are:

> *"(a) Contract. A contract is an agreement which creates an obligation. Its essentials are competent parties, subject matter, legal considerations, mutuality of agreement, and mutuality of obligation….*
>
> *"(c) Agreement. In the contract sense, "Agreement" is the expression of the Parties of a common intention to affect their legal relations. It is synonymous with "compact" and "understanding" and distinguishable from "arrangement."* [23]

The whole world knows and understands this. Common law contracts are used regularly in America and England and its colonies, including India and Australia. Countries who do business there or with citizens of those countries have a degree of familiarity with this law of contract. It is not unlikely that this paradigm would end up as the law of the land on the Moon regardless of the efforts of USIS.

Criminal Procedures and Crimes

The common law has grafted many rules onto the substance of crimes. It has evolved into a respected body of criminal procedures. These are far beyond the scope of this paper except to identify that astro law now has a definable set of crimes and procedures applicable thereto.

Conclusion

Astrolaw as common law extended into outer space allows for a continued cable of citizen-level laws, remedies, and punishments. A judicial tradition is enabled with precedent, commentary, and experience. Evolution is anticipated. The other legal documents that affect space law directly or indirectly are therefore segregated into their own special circumstance. These may or may not be drawn upon as persuasive precedents during that evolution of citizen law in outer space, common law, now known as astro law.

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[1] Robinson, George S., and White Jr., H.M., Envoys of Mankind: A Declaration of First Principles for the Governance of Space Societies, prologue by Gene Roddenbury at p. xx, Smithsonian Institution Press, 1986.

[2] Ibid, p. 30.

[3] Holmes, Oliver Wendell, The Common Law, 1881.

[4] Harris, Dr. Philip R., Living and Working in Space: Human Behavior, Culture, and Organization, Ellis Horwood, Ltd., England, 1991, p. 282.

[5] The five space treaties are: (1) The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and other Celestial Bodies, January 27, 1967, by the United Nations, a.k.a. The Outer Space Treaty of 1967; (2) The Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, April 22, 1968, by the United Nations, a.k.a. The Rescue and Return Treaty; (3) The Convention on International Liability for Damage Caused by Space Objects, March 29, 1972, by the United Nations, a.k.a. The Liability Treaty; (4) The Convention on Registration of Objects Launched into Outer Space, January 14, 1975, by the United Nations, a.k.a. The Registration Treaty; (5) The Treaty Governing the Activities of States on the Moon and Other Celestial Bodies, 1979, by the United Nations, a.k.a., The Moon Treaty of 1979.

[6] Benefit sharing as a treaty burden appears to be restated as the *common heritage of mankind* in the UN Treaty on the Law of the Sea, signed by U.S. President Clinton in 1994. This is a technical term that requires all nations to actively participate in asset management and pro rata distribution of all revenues back to all nations. The Deep Seabed Authority enabled by that treaty is managed by America and, otherwise, benefit sharing survives. See, O'Donnell, Declan J. and Harris, Philip R.: *"Is it Time to Replace the Moon Agreement,"* American Bar Association Air & Space Lawyer, 1994, p. 3.

[7] UN General Assembly resolution 51/122: Declaration on International Co-operation in the Exploration and Use of Outer Space for the Benefit and in the Interests of All States, Taking Into Particular Account the Needs of Developing Countries, para. 3, 1996. Note: This wording mimics the prior UN General Assembly resolutions on Space in 1963 and 1967, except "equitable basis" appears to modify classic benefit sharing language. This is also silent on "common heritage of mankind."

[8] O'Donnell, Declan J.,: *"Benefit Sharing: The Municipal Model,"* Proceedings of the 47th IAF Congress, (IISL), Beijing, China, 1996.

[9] Sattler, Rosanna, *"Transporting a Legal System for Property Rights: From the Earth to the Stars,"* Chicago Journal of International Law, Vol. 6, No. 1, 2005, p. 30.

[10] Ibid, pp. 31-43.

[11] Ibid, p. 39

[12] O'Donnell, Declan J., *"Astrolaw: The First Thousand Years*, circa 1100 A.D. to 2100 A.D., Space Governance Journal, 2003, Vol. 9, p. 11.

[13] Space Governance Journal, Vol. 6, pp. 11-31, 1999-2000, re the Regency.

[14] The Regency was voted upon as also known as the "International Space Development Authority Corporation": see, Space Governance Journal, 2003, Vol. 9, p. 4, regarding its meeting in Chicago, Illinois, during the International Mars Society Convention. A trade name affidavit was so authorized.

[15] The 50 Regents are private citizens and none are employed by any nation.

[16] *Corpus Juris Secundum* 88 (a) and (b), regarding estates in real property.

[17] Space Governance Journal, Vol. 9, p. 11 *et seq.*

[18] 86 C.J.S. Section 24 and 25.

[19] 86 C.J.S. Section 6, Torts Defined.

[20] Space Governance Journal, Vol. 6, p. 11, is deemed the official reporter for the Regency of USIS [and ISDAC].

[21] 17 C.J.S. Section 1, Contracts.

[22] Space Governance Journal, Vol. 9, p. 11 *et seq.*

[23] 17 C.J.S. Section 1, Contracts Defined.