This article from International Institute of Space Law is published by Eleven international publishing and made available to anonieme bezoeker

THE NEW AGE OF DISCOVERY AND THE CHANGING STRUCTURE OF SPACE LAW

Hamilton DeSaussure, Professor Emeritus
The University of Akron School of Law
Akron, Ohio, U.S.A.

Abstract

Once again mankind is on the threshold of a new era. Five centuries ago, the voyages of Columbus and Magellan opened up the new world not only to colonization and trade but to new ideas of freedom, human rights, and democracy. The colonization of the Americas by many diverse peoples brought forth the need for law and order and a legal system to enforce it. Each succeeding generation has witnessed an increased refinement and a massive accumulation of laws adopted to meet the demands of a growing population and the technological advances of each age.

As outer space and the celestial bodies open up to industry and commerce and to a new migration of adventurers, space law must also adopt and change to meet the demands for law and order which will follow. The fundamental space treaties have set forth general principles of space law to guide the future law makers. With plans for bases on Mars and the Moon already being made, space law must evolve from general principles to more detailed and, hopefully, universal rules to accommodate and facilitate an expanding population in outer space.

There are obvious parallels between the first landing on the Moon by Neil Armstrong and Buz Aldrin in 1969 and the landing of Columbus in North America in 1492. Both events marked the beginning of a new age of manned exploration and discovery. Columbus did not have the advantage of knowing where he had landed or background information on what he had found. However, he had studied astronomy and navigation as well as map making under Prince Henry the Navigator of Portugal and was as well prepared for the historic voyage to the new world as Armstrong and Aldrin were for the first touchdown on a celestial body. The first human touchdown on the Moon ranks with the first voyage of Columbus to America as two of the most significant events since the beginning of the Christian era.

There are significant differences too. With the opening up of the new world, and the migrations of peoples from Europe, came a flow of well-formed cultures, religions, and methods of government across the Atlantic. The legal systems of Europe, notably from England, France, and Spain were brought to the new world by the Pilgrims and new world settlers. The common law and the civil laws of North and South America have firm roots in the common and civil laws of Europe. Also, Columbus and those who followed, did not have to find new means of life support, nor concentrate on how, and for what purpose, mankind would desire to stay in their newly occupied territories. The significance of Columbus's achievements resulted in immediate exploitation and cultivation of the new world. The full significance of the manned landings on the Moon, other than to show what can be achieved by human skill and technology, is uncertain.

The challenge for the modern jurist in the new space age is to extend the rule of law into outer space in a pragmatic and organized way. European law followed Columbus and the early settlers to the west. What law will transcend into outer space is still largely undetermined. The Outer Space Treaty of 1967 seeks to set forth the framework for a trans-spatial regime. A typical casebook on international law will have several chapters devoted to nationality, territory, and sovereignty.[1] However, the Treaty has yet to be tested by the realities of human occupation of outer space. The Outer Space Treaty is specific in providing that activities in outer space will be conducted in accordance with international law.[2] Yet international law has developed over the last four or five centuries to regulate the conduct of states on our planet. It has not been fashioned to accommodate interplanetary or other extraterrestrial activity. The Treaty prohibits sovereign claims to places and spaces beyond our planet.[3] The sovereignty of nations is still a fundamental cornerstone of modern international law. The principles of territoriality and nationality also seem in some instances to be out of place in a celestial setting, but these are two other basic cornerstones of international law. A typical casebook on international law will have several chapters devoted to nationality, territory, and sovereignty.[4] Earthlings live in a state-oriented world where sovereignty and statehood, nationality, and territoriality, are the essence of our international legal system. In outer space, all these fundamental principles must be reexamined for their applicability and practicality. At least three prime subject areas of international law must be subject to new scrutiny. First, is the status of the individual in outer space, second is the status of the celestial community, large or small, which will arise with the establishment of the first manned outpost. Third is the role of the nation state in governing these new and unique space communities.

I. Status of the Spaceborne Individual

In a generic sense all individuals launched beyond our planet are spacefarers. All those who travel beyond our environment will belong to this class. They may be astronauts, other than mission personnel, journalists,

Copyright © 1992 by author. Published by the American Institute of Aeronautics and Astronautics, Inc. with permission. Released to AIAA to publish in all forms.

This article from International Institute of Space Law is published by Eleven international publishing and made available to anonieme bezoeker

observers or even tourists. When they board a space bound vehicle, they become spacefarers. Their status, while perhaps not as specifically defined as the astronaut, will have to be clarified by legislation and judicial opinion. However, as manned activity increases and particularly when outposts are established outside our environment, a more detailed classification is needed to provide guidance to legislators and regulators responsible for regulating extraterrestrial conduct. Astronauts are a class of spacefarers already established by law and regulations and clearly identified as a unique class.[5] Not so clearly defined as yet are other spacefarers who may be launched into space. They could be mission specialists not classified as astronauts, as well as journalists, observers, and ultimately any other space sojourner not rated an astronaut. They all could be labelled as space transients, having no fixed abode beyond the earth and venturing out of, and back into, the earth's atmosphere according to their needs. Workers on the space station, metallurgists, astronomers, scientists, and a host of other specialists elevated into space would fall into the category of space transients. A third category of spacefarer, and one which does not exist today, is the space domiciliary or spacedweller. This group would encompass those who have a more or less fixed abode, at least for an indefinite time, on an celestial outpost or in a permanently manned space station. It is this last category, the celestial spacedweller, which will bring into question the applicability of certain fundamental principles of international law such as nationality, allegiance, ownership, and in fact a host of subsidiary principles of international law.

1. Astronauts. Astronauts comprise the working crewmembers of the space object in flight. They may be compared to the working members of a ship's complement, the seamen, or to the crew of an aircraft, the airmen. NASA regulations only include commanders, pilots, and mission specialists as astronauts.[6] Payload specialists, observers, journalists for example are not considered astronauts.

Astronauts, because of the perils of their profession and the high skills they must possess will without doubt be subject to special rules for their safety and protection, as well as to detail their responsibilities. A ship's crew has always been treated with special consideration by the courts and the legislature. For example seamen are afforded common and civil law remedies, such as maintenance and cure and the right to a seaworthy ship, which are distinct from the remedies afforded their shore based colleagues such as harborworkers and longshoreman. The spacecraft commander, the pilot and the mission specialists are defined as astronauts. Payload specialists and other spaceflight participants are not included. Spaceflight participants obviously includes all other spacefarers not defined as astronauts or payload specialists. Teachers, journalists, congressman are some of the categories which have been nominated for spaceflight training.
Undoubtedly, astronauts will receive favored treatment as well. The perils of their occupation will equal and often exceed those confronting the ancient mariner.

2. Space Transients. Space transients are not an identifiable class of spacefarers as yet but will be as the exploration of the universe intensifies. This is a category of spacefaring individuals which travel into space to reach another destination. The transient has no mission to perform on the spacecraft nor is he or she on board merely to observe and record events. This category perhaps has the same juridical status as the ocean voyager or aircraft passenger. The duties owed by the ocean and air carrier to the fare paying occupant may very well be similar to duties which will be owed by the transport vehicle in space to its own passengers. Their is considerable literature on the status of the passenger in the air and at sea. Much of the common and written law pertaining to their status might be equally applicable to the space transient.

3. Spacedwellers. Spacedwellers should constitute another identifiable category. However their rights, responsibilities and duties are yet to be defined. Unless one considers the Russian Cosmonauts who have endured in outer space for nearly a year or more to be spacedwellers, this class of individuals does not yet exist. The emergence of spacedwellers is inevitable with the progressive development of plans for extraterrestrial outposts on the Moon and Mars. When individuals begin to permanently reside beyond the earth's envelope, many of the settled principles of international law as to sovereignty, nationality, jurisdiction, and ownership will need to be reformulated to meet spacetime conditions and in conformity with the provisions of the Outer Space Treaty.

II. Status of the Celestial homesites

The advent of spacedwellers will present novel legal problems many of which have been foreseen by such scholars as Dr. George Robinson of the Smithsonian Institute and Dr. J. Henry Glazer, formerly of NASA/Ames. They have written on the prospect of a future legal order which is derived from totally new principles.[7] It will have its sources in the practices and customs of the interplanetary community, rather than derived from analogy to terrestrial laws and customs. No one can accurately forecast how long it will be before self-sustaining planetary communities come into existence. Whether it be fifty, one hundred, or five hundred years, the structure of international law must change as well. Notions of nationality, territoriality, and jurisdiction will have to be reexamined for their applicability to the new dimension where state sovereignty has been rejected as a ruling principle.

1. Nationality. The essential distinction between those who live in outer space and those who travel beyond the earth for a temporary period, is the allegiance owed. All earth dwellers have the right to a nationality and a domicile. The right to a nationality is a fundamental principle of

This article from International Institute of Space Law is published by Eleven international publishing and made available to anonieme bezoeker

international law and is clearly expressed in the Universal Declaration of Human Rights.[8] The International Court of Justice in the Nottebohm Case defined it a "a legal bond having as its basis a social fact of attachment, a genuine connection of reciprocal rights and duties (between and individual and a particular state)".[9] However, the concept of individual nationality is inseparably linked to the sovereignty of nations and individual allegiance. As noted, in outer space, sovereignty over celestial bodies is prohibited.[10] Looking forward to the decade when humans begin to take up permanent residence on the Moon or Mars or within a permanent space station, the inhabitant's links to an individual countries will weaken and gradually fade away. Can there be a bond between a space inhabitant and a nation which he or she has never visited or seen? It could be argued that nationality will be accorded by the principle of jus sanguinis, with each inhabitant assuming the nationality of the last of his forebearers to live on earth. This would be inconsistent with the Nottebohm decision and lead to confusion. Ultimately space communities will develop from a blend of courageous pioneers from all parts of our globe.

However the space inhabitant must be linked with some place in order to subject him to a legal order which affixes liability, responsibility, and provides protection. As the principle of nationality begins to lose its importance as a connecting link between the permanent inhabitant in space and a particular nation, some other rule must appear to take its place. Perhaps it will be domicile alone that provides the connecting link. Every person in outer space must live somewhere. He or she must have an abode which he calls his home. Although this home may change from time, the common rule on earth is that everyone has a domicile at all times even when he or she is in transit from any home to a new one.[11] While nationality may be conferred upon an individual by governmental decree, domicile is essentially volitional and depends on a combination of intent and presence.

2. Territoriality. States are the primary subjects of international law. To qualify as a nation, a state must have a defined territory with a permanent population. Territorial sovereignty has been a hallmark of international law since the middle ages. Chief Justice Marshall of the U.S. Supreme Court wrote in 1812 that "the jurisdiction of the nation within its own territory is necessarily exclusive and absolute. It is susceptible of no limitation not imposed by itself".[12] As Justice Marshall remarked, territoriality imports the notions of exclusivity and absolutism. The rule of territory, however, has no applicability to a limitless environment where the rule embraces open access and multinational sharing. The Outer Space Treaty rejects any concept of territoriality in the international law sense by providing there can be no national appropriation of outer space, the moon or other celestial bodies. It is worth noting that it is national appropriation which is prohibited. Appropriation by an international organization, or by a community of spacedwellers in their own right, is not forbidden.

3. Jurisdiction. Territoriality is only one of the basis for the exercise of judicial, prescriptive, and enforcement jurisdiction. Another basis is nationality. However, if the genuine link between a territorial state and its former citizens or subjects has been severed by time and distance, nationality, like territoriality, seems to be inadequate for asserting jurisdiction over the spacedweller. The alternative basis to regulate and control the conduct of those transiting, working, or living in outer space would seem to be domicile which could be far away from our planet.

The freedom of will expressed in the concept of domicile seems to be more consistent with the new space age order, than a concept which is grounded on notions of territory and sovereignty. While domicile does not signify a strong bond with a particular nation, it is the basis for the incidents of a legal order. In particular it simplifies rules as to taxation, voting rights, judicial jurisdiction, probate, and legal capacity. Even today, in federations or unions, domicile can be the principal basis for administering the local law. [13] By proclaiming 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, or by any other means, it will be a space inhabitant's permanent residence, or his domicile, which will be the cornerstone for building a new legal regime tailored to living outside our earthly sphere.

III. Governance of the spacedweller and his community

1. Interim Responsibility and Protection. The Outer Space Treaty provides that party states bear international responsibility for national activities in outer space.[14] Included within the term national activities are those carried on by non governmental, as well as governmental, entities. This includes not only responsibility for injuries to individuals of other states, but also for breaches of treaties, unlawful use of force and other violations of international law. State responsibility is predicated on territorial sovereignty and the supremacy of nations. In the transitional phases of space pioneering, the links to earth are strong and the responsibility of a launching state can be easily identified. However, the Outer Space Treaty itself provides for a shared responsibility. It stipulates that activities carried on in outer space by international organizations shall be their responsibility as well as the member states of the organization. This is a prelude to the time when international organizations may share responsibility not necessarily with a sovereign state but rather which a self-governing community beyond the earth.

2. Transitional Forms of governance. Self-governing space colonies may be centuries away, but the gradual achievement of this goal will begin with the first permanent space outpost. With each step toward autonomy, a growing desire for self regulation and independence will arise. If the plans and projections of the Stafford Committee are

This article from International Institute of Space Law is published by Eleven international publishing and made available to anonieme bezoeker

realized, there may be permanent detachments of personnel on the Moon or on Mars within a few decades. How these detachments are initially created and regulated will determine how they are governed and what their responsibility is initially. If the first persons posted to the Moon, for example, are landed there through the sole enterprise of the United States, the common bond with the United States makes it certain that U.S. law, with all its refinements, will apply. If the first landed personnel are the product of a joint or multinational venture, their governance may be the subject of a multinational agreement. While the Agreement between the United States, Canada, Japan and the European Space Agency for a permanent space station in low earth orbit contemplates the formulation of a code of conduct for regulation of activities on board the proposed space station Freedom, the agreement does not deal with the need for a transfer of power from the party states to an independent authority.[15] The space code called for in the Agreement is an operational code to handle the command structure for operating an orbiting spacecraft, not a planetary outpost, and for regulating its occupants, not landed inhabitants. It will be basically a code for the operation of a vehicle, not a legislative rule for a permanent base on another planet.[16]

3. Colonies. Colonies, as a form of government, have for the most part disappeared. They have yielded to self rule and independence of formerly subjected peoples. Nevertheless, for want of a better description, outposts in space will have many of the attributes of a colonial regime. They will be dependent upon, and to a large extent governed, by external authority and subject to its administrative, judicial, and legislative jurisdiction. While colonies have not been regarded as having international personality, they have been parties to multilateral treaties. The Covenant of the League of Nations allowed a fully self governing dominion or colony to become a member of the League of Nations.[17] India is an example of a former colony which, prior to its independence, became a party to a some multilateral treaties, such as the 1944 Chicago Convention on Civil Aviation. However the central authority remained responsible for compliance with the treaty of establishment and its ultimate governance. Most colonies have achieved complete independence since world war II and most are members of the United Nations. This is the path that frontier settlements in space could take as they gradually achieve more capacity for self rule and the population to sustain it.

4. Trusteeships and Mandates. Another possibility is to place the spatial communities under an international trusteeship system administered under the international trusteeship system of the United Nations.[18] Designated countries would act as the administering power. The trusteeship system would constitute an interim arrangement. The fundamental objectives would be the same as for trust territories, which is progressive development towards self government and respect for human rights.

The trustee state is not sovereign in the territory governed, but has the power to prescribe and enforce the rule of law under the supervision of the Trusteeship council.

5. Condominiums. Another possibility is the creation of Condominiums in space governed by joint agreement of two or more states but not under the United Nations trustee system. Historically, states have agreed to joint jurisdiction under designated areas. From 1922 to 1981, the United Kingdom and France jointly governed the New Hebrides. Saudi Arabia and Kuwait agreed to sharing equal rights over a strip of territory between their two countries. A condominium might be a good solution if a joint venture to the Moon or Mars is undertaken by the U.S. and Russia. Responsibility and government would be shared but, as in the case of trustees, the goal would be the ultimate independence of the communities established.

4. Protectorates. Another transitional model for spatial communities would be a form of protectorate. This has also has been a system to administer less developed communities. Protectorates have been created to confer many powers on the protecting state while leaving the administration of internal affairs to local government. In this system, the conduct of foreign affairs, and defense, economic and political control are retained by the home states. Protectorates have all but disappeared to day, but their use as a transitional form is an alternative.

5. Associated States. As space communities succeed in self government, they might achieve a status similar to that of associated states. A number of now independent countries such as Antigua, Dominica and Grenada were associated states within the commonwealth of the United Kingdom. Puerto Rico is an associated state aligned with the United States. Micronesia now enjoys the status of an associated state under the protection of the United States.[19] Self governing communities on the Moon and Mars could emerge as associated entities under the security and diplomatic protection of one of the nations on earth.

IV. Conclusion

The right of self determination for all people is included as one of the first principles in the International Convention on Human Rights. It is "enshrined" in the United Nations Charter.[20] It has been said that the territorial unit appropriate for self determination must be "internationally determined". Principle VIII of the Helsinki Accords provides:

All peoples have the right, in full freedom, to determine when and as they wish, their internal and external political status, without external interference, and to pursue as they wish their political, economic, social and cultural development.[21]

In order to qualify as a "people" space based inhabitants must be true spacedwellers, or domiciliaries,

This article from International Institute of Space Law is published by Eleven international publishing and made available to anonieme bezoeker

having no intent to return to earth other than as visitors or transients. These inhabitants must have also achieved a large degree of internal autonomy and self rule. The evolution from spacefarer to spacedweller may be long and tortuous but its inevitability is certain. The rule of law in outer space must be flexible and accommodating to promote the even and peaceful transition of jurisdiction and control from a state centrist system on earth to a universal, community oriented, system in space.

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, Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. 6347, 610 U.N.T.S. 205 (effective Oct. 10, 1967).

2 Id. at art. III.

3 Id. at art. II.

4 A typical casebook on international law will have several chapters devoted to nationality, territory, and sovereignty. See Briggs, The Law of Nations (1938). See also Bishop, International Law (3rd ed. 1971).

5 Aeronautics and Space; Astronaut Recruitment and Selection, 14 C.F.R. 1214.1101-1214.1107 (1989).

6 Aeronautics and Space, 14 C.F.R. 1214.301 (1989).

7 J. Henry Glazer, Domicile and Industry in Outer Space, 17 Colum. J. of Transnat'l L. 67 (1978). George S. Robinson, Living in Outer Space (1975).

8 Universal Declaration of Human Rights, U.N.G.A. Res. 217/A (III 1948).

9 The Nottebohm Case, 1955 I.C.J. 4.

10 Supra note 3.

11 Restatement (Second) of Conflict of Laws 11(2).

12 The Schooner Exchange v. McFaddon, 11 U.S. (7 Cranch) 116 (1812).

13 See de Winter with his estimate of how many millions of people adhere to each principle as the cornerstone of its legal system. Nationality or Domicile?, 3 Recueil des Cours 349, 358 (1969), noted in Scoles at 167.

14 Supra note 1 at art. VI.

15 Agreement on Cooperation in the Detailed Design, Development, Operation, and Utilization of the Permanently Manned Civil Space Station, Sept. 29, 1988, U.S.-The Eur. Gov'ts.- Japan-Can.

16 Supra note 1 at arts. 10, 11.

17 See Henkin et al., International Law (2d ed. 1986) p. 274.

18 U.N. Charter ch. XII.

19 Supra note 17.

20 U.N. Declaration Concerning Friendly Relations Among States, U.N.G.A. Res. 2625/XXV, U.N. Doc. A/8082 (1970).

21 Principle VIII, Helsinki Accord of 1975, 14 Int'l. Legal Matters 1292 (1975).