AN INTERNATIONAL SPACE AUTHORITY: A GOVERNANCE MODEL FOR A SPACE COMMERCIALIZATION REGIME

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I. INTRODUCTION

For centuries, human beings have been viewing outer space as a source of inspiration. The launch of *Sputnik-1*[1] and Armstrong's walk on the Moon[2] marked the dawn of the space age. Technological developments have made exploration and use of outer space a reality. The race for accomplishment in outer space was a mark of the Cold War period. However, after the 1990s, the international political atmosphere fundamentally changed. Peace and Earth-bound development become main themes for State governments. The political change also substantially influenced the intended activities in outer space.[3] How to make full use of outer space in a peaceful way became the main concern of most space scientists, lawyers and practitioners. Outer space is replete with natural resources and the potential profits from the use of these resources justify commercializing outer space. The development of the legal regime for outer space rightly follows the evolution of space activities.

Recent developments in outer space signal the introduction of a new era in the rapidly developing field of space law. The 1998 Intergovernmental Agreement (IGA) provides the basic framework for establishing the International Space Station

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[1] Walter Sullivan, *Course Recorded-Navy Picks Up Radio Signals—4 Report Sighting Device,* N.Y. TIMES, Oct. 5, 1957, at A1.

[2] John Noble Wilford, *A Powdery Surface Closely Explored,* N.Y. TIMES, July 20, 1969, at A1.

[3] Frans G. von der Dunk, *Towards a European Space Agency, Mark II?,* 35 COLLOQUIUM ON THE LAW OF OUTER SPACE 172 (1992).

(ISS) and future commercial applications.[4] The successful trips of two space tourists to the ISS,[5] using the ISS for a global advertising campaign,[6] etc., further justify the diversified commercial potential of the ISS. This trend is not the end of the story. The successful launch of space stations that support humans has inspired China to establish a Chinese national space station in the near future.

While national governments remain as the primary entities undertaking responsibilities in outer space, private groups are increasingly getting involved in space activities. Throughout the 1980s, the government of the United States encouraged private enterprises to take the lead.[7] The lure for non-governmental entities is certainly present: the potential for profit is great in outer space.[8] Yet, the ambiguity in the existing legal regime for outer space remains an obstacle for further involvement of private parties.

The notion of States sharing a common interest in the exploration and use of outer space led the international community to declare outer space to be the "province of all mankind".[9] Some scholars have interpreted this to be the **functional and**

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[4] Agreement among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russia Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station, Jan. 29, 1998, Temp. State Department No. 01-52, CTIA No. 10073.000, *available at* 2001 WL 679938, (entered into force Mar. 27, 2001) [hereinafter IGA].

[5] Anna Badkhen, *US Tourist Arrives at Space Station: Tito is Greeted by Russians After Weekend Flight,* BOSTON GLOBE, May 1, 2001, at C4; *South African Tourist Docks at Space Station,* L.A. TIMES, Apr. 28, 2002, at A10; Sean R. Mikula, *Blue Helmets in the Next Frontier: The Future is Now,* 29 GA. J. INT'L & COMP. L. 531, 556-57 (2001).

[6] Henkel was the first company to use the ISS for advertisement: a set of Pritt gluesticks was tested by the cosmonauts under conditions of weightlessness and the experiments were filmed. Henkel later used the footage to produce TV commercials for the glue that works in space. *See World Wide Pritt—Space Proof Quality, available at* http://www.prittworld.com/space_proof/index_hau.htm (last visited Oct. 15, 2004).

[7] Anthony R. Filiato, *The Commercial Space Launch Act: America's Response to the Moon Treaty?,* 10 FORDHAM INT'L L.J. 763, 772 (1987).

[8] *See* Ty S. Twibell, *Space Law: Legal Restraints on Commercialization and Development of Outer Space,* 65 UMKC L. REV. 589, 591 (1997).

[9] *See* 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, art. I, 18 U.S.T. 2410, 610 U.N.T.S. 205 (entered into force on Oct. 10, 1967) [hereinafter Outer Space Treaty].

legal equivalent of "common heritage of mankind" (CHM),[10] which was officially introduced to the mineral resources of the Moon.[11] The use of the two terms above rightly shows the concerns of the international community as a whole. However, the ambiguity and ramifications of those terms have left space law as one of the least stable and clarified areas of international law. No treaties offer guidance on how to implement the CHM concept in outer space.

Actually, it is not the only area where the CHM concept is used. In the United Nations Convention on the Law of Sea (UNCLOS), deep seabed resources are also defined as CHM. A regime was established to realize the purpose of the term.[12] Part one of this paper compares the use of the term in the two regimes and discusses the feasibility of transplanting the model of deep seabed to outer space for the sole purpose of commercialization.

Part two discusses the term "common heritage of mankind" and its use in the two treaties: the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Treaty) and the UNCLOS. Part three addresses the establishment of the International Seabed Authority (Seabed Authority) and the realization of the purpose of the CHM. Part four suggests an International Space Authority (ISA) might be established, following the model of the deep seabed. The ISA can

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[10] The two terms, as applied in two different treaties for different purposes, cannot be used interchangeably. B. Maiorsky, *A Few Reflections on the Meaning and the Interrelation of "Province of All Mankind" and "Common Heritage of Mankind Notions"*, 29 COLLOQUIUM ON THE LAW OF OUTER SPACE 58-61 (1986). Nevertheless, the principles outlined in the Outer Space Treaty—for the benefit of all countries, free for exploration and use, on a basis of equality, free access, and not subject to national appropriation—form the heart of the CHM. Both terms share the following **functions**: apply to the exploitable space resources and protect the interests of technologically less advanced states. The CHM allegedly establishes a legal framework to implement the declaration in the Outer Space Treaty. *See also* Gijsbertha Cornelia Maria Reijnen, THE UNITED NATIONS SPACE TREATIES ANALYZED 96 (Kluwer ed., 1992); Sylvia Maureen Williams, *The Law of Outer Space and Natural Resources*, 36 INT'L & COMP. L.Q. 142, 145 (1987); Aldo Armando Cocca, *The Advances in International Law through the Law of Outer Space*, 9 J. SPACE L. 13, 16 (1981).

[11] Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Dec. 5, 1979, Art 11, U.N. GAOR, Doc. A/RES/34/68 [hereinafter Moon Treaty].

[12] United Nations Convention on the Law of the Sea, Dec. 10, 1982, art. 156, 1833 U.N.T.S. 3 (entered into force Nov. 16, 1994) [hereinafter UNCLOS].

the create a stable governance regime for private activities in outer space that will be acceptable to both developed and developing countries. Based on the analysis of these parts, part five reaffirms the necessity and feasibility of the establishment of the ISA to accommodate the commercialization trend in outer space.

II. THE CONCEPT OF "COMMON HERITAGE OF MANKIND"

More than any technical challenge, the lack of legal stability is the primary impediment to the commercial development of outer space.[13] There are no insurmountable technological impediments to the exploitation of outer space resources. The restraints are imposed by policy, economics and law.[14] CHM was the chief source of confusion and uncertainty in the outer space legal regime. The use of this concept can resort to the Roman law theory of *res communis*, which was applied to community property that could not be owned by a person, a state, or a collection of states.[15] This concept was later applied to the Antarctic, the deep seabed and outer space.[16] However, the modern version has incorporated an additional element of reasonable use: *res communis* property still cannot be owned, but it can be used in an appropriate way to benefit mankind.[17]

There are five elements generally considered to be central to the modern application of the CHM concept: the area is not subject to national appropriation; all countries share in the management of the area; the benefits derived from exploitation

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[13] *See generally* Ty S. Twibell, *Circumnavigating International Space Law,* 4 ILSA J. INT'L & COMP. L. 259 (1997).

[14] Richard Berkley, *Space Law Versus Space Utilization: The Inhibition of Private Industry in Outer Space,* 15 WIS. INT'L L.J. 421, 428 (1997).

[15] Lea Brilmayer & Natalie Klein, *Land and Sea : Two Sovereignty Regimes in Search of a Common Denominator,* 33 N.Y.U. J. INT'L L. & POL. 703, 706-07 (2001); L. F. E. Goldie, *A Note on Some Diverse Meanings of 'The Common Heritage of Mankind',* 10 SYRACUSE J. INT'L L. & COM. 69, 81 (1983); *See generally* L. F. E. Goldie, *Title and Use (and Usufruct)—An Ancient Distinction Too Oft Forgot,* 79 AM. J. INT'L. L. 689 (1985).

[16] Oscar Schachter, *Philip Jessup's Life and Ideas,* 80 AM. J. INT'L. L. 878, 894 (1986); Carl Q. Christol, *The Moon Treaty Enters into Force,* 79 AM. J. INT'L. L. 163, 164 (1985).

[17] Mahdi El-Baghdadi, *The Seabed's Mineral Resources and the Conditions Affecting the Regime to Regulate Their Exploitation,* 26 J. WORLD TRADE 88 (1992).

of resources in the area must be shared with all regardless of the level of participation; the area must be dedicated to peaceful purposes; and the area must be preserved for future generations.[18]

Divergences exist concerning the detailed implementation of the CHM concept. The primary problems derive from its demand for a forced transfer of benefits in the name of equity and the legal uncertainty that this doctrine has engendered regarding private property rights and an international governance regime.[19] Developed and developing countries[20] hold totally different views towards the concept.[21] That is, the need to recover invested costs and return a profit to finance future activities *vs.* an opportunity to correct past inequalities and to redistribute global resources and wealth. Accordingly, some scholars have concluded that the divergence results from a conflict between the efficient allocation of communal resources and equitable allocation of these resources.[22]

Various scholars have deeply discussed their understandings of the CHM concept.[23] The discussions during the drafting of the UNCLOS led to the adoption of the governance regime: establishment of the Seabed Authority.[24] This body undertook

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[18] Barbara Ellen Heim, *Exploring the Last Frontiers for Mineral Resources: A Comparison of International Law Regarding the Deep Seabed, Outer Space and Antarctica,* 23 VAND. J. TRANSNAT'L L, 819, 827 (1990); *see generally* Christopher C. Joyner, *Legal Implications of the Concept of the Common Heritage of Mankind,* 35 INT'L. & COMP. L.Q. 190 (1986). R.J. Rao, RECENT TRENDS IN INTERNATIONAL SPACE LAW AND POLICY 195-99 (V.S. Mani ed. 1997).

[19] Kevin V. Cook, *The Discovery of Lunar Water: An Opportunity to Develop a Workable Moon Treaty,* 11 GEO. INT'L. ENVTL. L. REV. 647, 648 (1999).

[20] M.C.W. Pinto, *The Developing Countries and the Exploitation of the Deep Seabed,* 15 COLUM. BUS. L. REV. 30 (1980).

[21] Kelly M. Zullo, *The Need to Clarify the Status of Property Rights in International Space Law,* 90 GEO. L.J. 2413, 2424-26 (2002).

[22] Christopher M. Petras, *"Space Force Alpha": Military Use of International Space Station and the Concept of "Peaceful Purposes",* 53 A.F. L. REV. 135, 151-52 (2002); Michael J. Finch, *Limited Space: Allocating the Geostationary Orbit,* 7 NW. J. INT.'L L. & BUS. 788, 798 (1986).

[23] *See* Eric Husby, *Sovereignty and Property Rights in Outer Space,* 3 J. INT'L. L. & PRAC. 359, 369 (1994); Heidi Keefe, *Making the Final Frontier Feasible: A Critical Look at the Current Body of Outer Space Law,* 11 SANTA CLARA COMPUTER & HIGH TECH. L.J. 347 (1995).

[24] UNCLOS, *supra* note 12, at arts. 159-69.

its duty from 1994 after several revisions of the original UNCLOS.

However, heated discussions did not lead to any substantial improvement in the legal regime accommodating the commercialization of outer space. Existing space law does not provide any guidance enabling the creation of an effective regime fostering commercial space exploitation.[25] Theoretical analysis did not come to any conclusion acceptable to all the parties.[26] Nevertheless, even with the unstable legal status in place, various parties, foreseeing potential profit, have started their own projects aiming at commercializing outer space. For example, the IGA provides a specific model for multinational cooperation among active participants without an overarching international legal and governance regime.[27] The United States has also executed a series of bilateral Memoranda of Understanding with Partner States concerning outer space activities.[28] With no clear-cut rules and regimes in place, the activities are carried out subject to Partner States' own interpretations. This is increasingly detrimental to the development of commercial activities in outer space. States can take actions at will and there are no defined rules governing their activities, which ultimately leads to the devastating result of a "gold rush" by space-faring states. Developing states will be completely left out of the game. Such a situation will fail to provide a predictable and stable environment which is necessary for the involvement of private entities, and will fail to win international approval.

While no theoretical framework can be agreed upon to govern the commercial activities in outer space,[29] states should

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[25] Keefe, *supra* note 23, at 357-58.

[26] Brian M. Hoffstadt, *Moving the Heavens: Lunar Mining and the "Common Heritage of Mankind" in the Moon Treaty*, 42 UCLA L. REV. 575, 581, note 30 (1994).

[27] *See generally* Lara L. Manzione, *Multinational Investment in the Space Station: An Outer Space Model for International Cooperation?*, 18 AM. U. INT'L L. REV. 507 (2002); Andrew D. Watson & William G. Schmidt, *Legal Issues Surrounding the International Space Station*, 7 USAFA J. LEG. STUD. 159 (1996).

[28] A. Farand, *Space Station Cooperation: Legal Arrangements*, *in* OUTLOOK ON SPACE LAW OVER THE NEXT 30 YEARS: ESSAYS PUBLISHED FOR THE 30TH ANNIVERSARY OF THE OUTER SPACE TREATY 153 (G. Lafferranderie & D. Crowther eds., 1997) [hereinafter OUTLOOK].

[29] The Moon Treaty has achieved so far only a very little number of ratifications. Neither developed nor even developing countries had become parties to the Treaty. The

adopt a pragmatic approach to deal with the issue. Simply put, they should start formulating a governance regime for the purpose of commercialization in outer space. Appropriate guidance could be formulated to accommodate the interests of different parties. Though some might argue that this approach is premature, the result is better than needless quarreling over the essentials of the concept. A good example has been set by the UNCLOS. States should follow similar steps and formulate a regime subject to further discussion and adoption.[30]

Based on the example of the deep seabed, it appears that CHM has lost much of its attraction for developing countries. The political and economic conditions that led to the UNCLOS have changed significantly. The treaties containing the concept of the CHM were argued vehemently in the politically tense atmosphere of the Cold War. The primary goal was to prevent the former Soviet Union and the United States from gaining a military advantage, rather than developing a regime that would support private development.[31] The end of the Cold War and the adoption of a market-economy approach by most developing countries has pushed the idea of capitalism and the free market approach into the limelight.[32] Through years of discussion, most scholars believe that the CHM, while maintaining some policy significance, lacks the force of accepted international law.[33] A great number of persons even consider the concept as meaningless and lacking no practical value.[34]

While continuing upholding the concept of CHM, the free-market approach plays an important role in devising the regime for the deep seabed. Most scholars believe that only by making full use of the resources in the deep seabed rather than estab-

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CHM concept in the Moon Treaty has long been and still is subject to different interpretations by developed and developing nations.

[30] Grier C. Raclin, *From Ice to Ether: The Adoption of a Regime to Govern Resource Exploitation in Outer Space,* 7 NW. J. INT'L. L. & BUS. 727, 739 (1986).

[31] Ezra J. Reinstein, *Owning Outer Space,* 20 NW. J. INT'L L. & BUS. 59, 62 (1999).

[32] Jonathan I. Charney, *The United States and the Revision of the 1982 Convention on the Law of the Sea,* 23 OCEAN DEV. & INT'L. L. 279 (1992).

[33] Peter Malanczuk, *Actors: States, International Organizations, Private Entities, in* OUTLOOK, *supra* note 28, 32-33; Arthur W. Blaser, *The Common Heritage in its Infinite Variety: Space Law and the Moon in the 1990s,* 5 J. L.& TECH. 79, 93 (1990).

[34] Joyner, *supra* note 18, at 198.

lishing a regime installing commercial exploitation, can the living standards in all the Nations be effectively improved.[35] Acknowledging the benefits of commercial exploitation, all nations, developed and otherwise, have a basis to work together to find an appropriate resolution. Essentially, the same political and economic environment exists for outer space. A similar regime to that of the deep seabed could, thus, be possible for the exploitation of outer space resources. Consequently, the focus for now is to identify the legal mechanisms and political compromises that successfully resolved the CHM dilemma for the deep seabed and apply it to outer space. This is more efficient than developing new legal, economic, and political theories.

III. THE INTERNATIONAL SEABED AUTHORITY

The Seabed Authority, established in 1994 under the UNCLOS, is an intergovernmental body.[36] It organizes and controls all mineral-related activities in the international seabed area beyond the limits of national jurisdiction.[37] Part XI of the Convention uses the CHM to preclude the deep seabed from national appropriation.[38] It is Part XI that has caused the most debate and is the principal obstacle to U.S. ratification of the Convention.[39]

The Authority is responsible for licensing and regulating mineral exploration and exploitation of the seabed beyond the limits of national jurisdiction.[40] According to Part XI, a multinational mining company is created to participate in mining activities in competition with private companies licensed by the Authority.[41] Access to the resources is prohibited if not approved

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[35] Glenn H. Reynolds, *Outer Space and Peace: Some Thoughts on Structures and Relations,* 59 TENN. L. REV. 723, 731 (1992).

[36] *International Seabed Authority: From Wikipedia, The Free Encyclopedia, at* http://en.wikipedia.org/wiki/International_Seabed_Authority (last visited Aug. 3, 2004) [hereinafter *Encyclopedia*].

[37] *Id.*

[38] UNCLOS, *supra* note 12, at art. 136-37.

[39] Charney, *supra* note 32, at 280.

[40] UNCLOS, *supra* note 12, at art. 156.

[41] *Id.* at art. 170.

by the licensing authority.[42] Applicants are required to present two sites of roughly equal value.[43] The Authority may reserve one site for its own use.[44] Furthermore, the Authority is empowered to collect fees from the licensees and to distribute funds in excess of that necessary to cover its operating expenses to developing countries.[45] Other provisions in the Convention include a decision-making process[46] and the transfer of technology to member states.[47]

Part XI is the subject of heated discussion. The absence of customary international law on the particular question of mining resources from the deep seabed[48] made Part XI of the Convention all the more important.[49] No doubt, the Convention acknowledges the CHM,[50] and the Authority is created to realize the purpose of the CHM.[51] However, the controversy exists concerning the level of control exercised by the Authority and its preferential treatment for developing countries.[52] Several provisions of the Convention were considered to deter the development of natural resources: the imposition of specific production guidelines and limits;[53] requirements of mandatory private technology transfer and benefit sharing;[54] the failure to give a valid decision-making role to the countries actively involved in the mining of deep seabed resources;[55] and the failure to provide

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[42] *Id. See also* Cook, *supra* note 19, at 680.

[43] UNCLOS, *supra* note 12, at art. 8.

[44] *Id.*

[45] UNCLOS, *supra* note 12, at art. 173.

[46] *Id.* at art. 159.

[47] *Id.* at art. 144; art. 5, Annex III.

[48] Patricia Minola, *The Moon Treaty and the Law of the Sea,* 18 SAN DIEGO L. REV. 455, 459-60 (1981).

[49] Cook, *supra* note 19, at 681-82.

[50] UNCLOS, *supra* note 12, at art. 136.

[51] *Id.* at art. 157.

[52] The U.S. and the European Community were both against Part XI. *See* James L. Malone, *The United States and the Law of the Sea,* 24 VA. J. INT'L L. 785, 786 (1984); Michael Hardy, *The Law of the Sea and the Prospects for Deep Seabed Mining: The Position of the European Community,* 17 OCEAN DEV. & INT'L L.J. 309, 314 (1986).

[53] UNCLOS, *supra* note 12, at arts. 6-7, Annex III.

[54] *Id.* at art. 5, Annex III.

[55] UNCLOS, *supra* note 12, at art. 159.

assured access to qualified deep seabed companies to conduct mining activities.[56]

Negotiations continued until the adoption of the 1994 Agreement relating to the Implementation of Part XI (seabed provisions) of the Convention.[57] The difficulties posed by the CHM are in the process of being successfully resolved. The original divergence between developed and developing countries was reconciled when voluntary multilateral agreements were reached by the developed countries and their mining companies in the 1980s and also by discussions initiated by the Secretary-General of the UN in the early 1990s.[58] While maintaining strong opposition before 1994 to the adoption of the Part XI of the Convention, the US signed the new Agreement, enabling it to provisionally apply the seabed-related portion of the Convention and to participate in the work of the Authority.[59]

While reaffirming that deep seabed and its resources are CHM, the new Agreement establishes rules and procedures governing the exploitation of those resources, which rightly resolve the concerns of developed countries. The following summarizes the important changes in the new Agreement.

First, a consensus-based decision-making process took the place of the one-member, one-vote system. Representation on the Council is evenly distributed among different categories of members. Only when consensus is not possible, should the decision be made by a two-thirds majority vote.[60] Second, a market-oriented approach was adopted to resolve the issue of technology transfer. The application fee and the annual fees are reduced.[61] Developing countries can obtain technology on fair and reason-

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[56] Charney, *supra* note 32, at 286; Heim, *supra* note 18, at 828.

[57] Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, with Annex, July 28, 1994, 1836 UNTS 41, reprinted in 33 I.L.M. 1309 (1994). The Annex entered into force on July 28, 1996 [hereinafter Annex].

[58] Charney, *supra* note 32, at 287; James H. Andrews, *US Changes Tack on Ocean Treaty,* CHRISTIAN SCIENCE MONITOR, May 18, 1994, at 8.

[59] Marjorie Ann Browne, *Law of the Sea: the International Seabed Authority—Its Status and U.S. Participation Therein*, Sept. 16, 1996, *available at* http://www.ncseonline.org/NLE/CRSreports/Marine/mar-22.cfm?&CFID=16587223&CFTOKEN=99935987 (last visited Oct. 18, 2004).

[60] UNCLOS, *supra* note 12, at art. 3, Annex III.

[61] Annex, *supra* note 57, § 8.

able commercial terms.[62] Production ceilings are abolished. Third, the Agreement provides that subsidization or any other discriminatory practices shall not be applied in the development of deep seabed resources.[63] Furthermore, fifteen-year timetables, instead of five-year, were provided for the approval of proposed exploration work plans, thus providing economic certainty for investors.[64]

The modifications adopted in this Agreement are relevant to the discussion regarding outer space, which has characteristics similar to the deep seabed. This similarity forms the basis for employing the model and style of deep seabed governance to outer space. The improvements in the new Agreement are considered in the discussion on formulating a governance system for outer space.

IV. ESTABLISHMENT OF THE INTERNATIONAL SPACE AUTHORITY

Realizing the commercial potential of outer space is an issue in need of urgent resolution. It is important to devise a regime for the exploitation of outer space by reaching a balance between protecting the profits of relevant exploiting entities and serving the interests of humankind.[65] While previous discussions focused on the theoretical framework of the CHM concept, it is the purpose of the present paper to focus on establishing a governance regime based on the successful example of the Seabed Authority. Discussions concerning the use of CHM will continue, just like the situation regarding the deep seabed: heated discussions continued even after the Seabed Authority was established and commercial activities began. Nonetheless, the existence of a stable governance regime can, as in the case of the deep seabed, enhance the confidence of space investors and promote further development of commercial space activities.

The deep seabed and space share the following similarities: they have potentially valuable natural resources; they both re-

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[62] *Id.* § 5.
[63] *Id.* § 6.
[64] *Id.* § 2.
[65] David Tan, *Towards a New Regime for the Protection of Outer Space as the "Province of All Mankind"*, 25 YALE J. INT'L L. 145, 193 (2000).

quire high technology and sufficient financial backing for exploration; and activities in the two areas should be carried out for the benefit of all humankind. The main difference between them is their geographical locations. However, this will not require a significant or substantial impact on the final rules and the regime adopted governing space activities.[66] Space law has therefore been largely influenced by factors similar to the deep seabed.[67]

The Moon Treaty did not create an international regime, but it requires that States party to the agreement do so "as such exploitation is about to become feasible".[68] Witnessing the rapid development of outer space activities, it is time for space lawyers to take a pragmatic approach. Theoretical discussions are beneficial to the clarification of the CHM concept. However, commercial activities will proceed and will not wait for the final resolution of the issue. It is thus all the more important to start devising a regime as required by space commercial activities. Commercial projects had actually started before reaching the final stage of the ISS: the sending of the two space tourists to the ISS meant even more for the future.[69]

V. GUIDELINES

The original text of the UNCLOS on the deep seabed was not well received in several aspects.[70] Only after making several amendments did the governance regime for the deep seabed re-

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[66] The rules and the regime for both areas share the same purpose: to create a stable and equitable legal environment where the financial risks are tempered and property rights are protected. Governance regimes for both areas can provide economic incentives necessary to promote and sustain the development of commercial activities. Accordingly, economic and equitable considerations are most important in devising a governance regime.

[67] Husby, *supra* note 23, at 362.

[68] Moon Treaty, *supra* note 11, at art. 11. It provides that "States Parties to this Agreement hereby undertake to establish an international regime, including appropriate procedures, to govern the exploration of the natural resources of the moon as such exploitation is about to become feasible."

[69] *See generally* R. Thomas Rankin, *Space Tourism: Fanny Packs, Ugly T-Shirts, and the Law in Outer Space,* 36 SUFFOLK U. L. REV. 695. (2003).

[70] Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order,* 81 GEO. L.J. 675, 704 (1993).

ceive wide acceptance. It is thus important to bring the disputed issues to notice before formulating a similar regime for outer space. No doubt, the CHM is the underlying principle guiding the formulation of these rules.[71] Several guidelines should be further formulated for better implementation of the CHM.

First, the proposed ISA should have a Council consisting of a wide and balanced representation in the decision-making process. Similar to the Seabed Authority, representation on the Council should consist of thirty-six members, and be distributed as follows: four from the largest consumers or importers of products; four from among the largest exporters of products; four from among those States that have made the largest investments in preparation for commercial activities in the area; six from developing countries; and the rest selected to achieve equitable geographical distribution.[72] Consensus should be the primary mechanism in decision-making. Where consensus is not possible, then a decision should be made by a two-thirds majority of the Council.[73]

Second, technology transfer to developing countries should not be obligatory. Modern technologies represent valuable assets that must be equally protected by existing laws governing intellectual property rights.[74] The entities, having worked, risked, and spent money on research and development, should be allowed to maintain their technologies and retain any profits from them.[75] Developing countries should obtain technology at market price, but the price should be fair and reasonable. Other ways can be formulated to promote the transfer of technology to developing countries, such as establishment of joint ventures with developing countries. Furthermore, as a balance to benefit the exploring entities and States, rules regarding economic assistance to developing countries, especially to those having been seriously affected by the commercial activities in outer space, should be formulated. A special fund can be established to assist

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[71] *Encyclopedia, supra* note 36.

[72] Annex, *supra* note 57, § 3(15).

[73] *Id.* § 3 (2), (3).

[74] Roger K. Hoover, *Law and Security in Outer Space from the Viewpoint of Private Industry*, 11 J. SPACE L. 115, 122-24 (1983).

[75] *Id.* at 118.

economic development in these countries; the funds can be levied from payments received from contractors', including the exploring entities', voluntary contributions.

Third, a free-market approach should be adopted. Formerly, national governments have been the main body responsible for space activities. Government regulation has resulted in a poorly managed space industry with little accountability for failures.[76] When private entities become increasingly involved in this field, a free-market approach has been called on. As claimed by Fountain, a free-market approach bolstered by the legal certainty inherent in a system that provides defined property rights would do much to energize the stalled development of the space industry.[77] Exploitation of outer space resources should thus be based on commercial principles: anti-competitive practices, such as subsidization and discriminatory treatment should not be permitted during the process of commercializing outer space. Important rules in the World Trade Organization concerning liberalization of relevant markets, such as the principle of national treatment[78] and rules on monopolies and exclusive service providers,[79] should also be applied.

Fourth, closely related to the last point, transparency in granting access should be advocated. Transparency measures, as an important mechanism of both reassurance and verification when linked to cooperative obligations, serve to demonstrate peaceful intent, good faith and ongoing compliance with the rules.[80] Basically, commercial ventures will be the most important vehicles for future space activities. Equal access to outer space resources should be well available and guaranteed.[81] Procedures for approval of new applications should be in place. The availability of accurate information on space resources is also

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[76] Lynn M. Fountain, *Creating Momentum in Space: Ending the Paralysis Produced by the "Common Heritage of Mankind" Doctrine,* 35 CONN. L. REV. 1753, 1774-75 (2003).

[77] *Id.*

[78] *See* General Agreement on Trade in Services, Apr. 15, 1994, art. 17, reprinted in 33 ILM 1168.

[79] *Id.* at art. 8.

[80] Nina Tannenwald, Law *Versus Power On the High Frontier: The Case for a Rule-Based Regime for Outer Space,* 29 YALE J. INT'L. L. 363, 419 (2004).

[81] Outer Space Treaty, *supra* note 9, at art. 1.

vital to the success of exploitation. Accurate information can enable private entities to plan efforts, deploy assets effectively, and reduce costs and risks.[82] Thus, transparency and easy access to information relevant to space exploitation should be provided.[83]

Fifth, the proposed body should try to balance the interests of exploring countries and developing countries.[84] The Outer Space Treaty establishes that all nations, on the basis of equality and without discrimination, are free to explore and use outer space. Exploration and use must be for the benefit of all countries, irrespective of their economic or scientific development.[85] However, in view of the fact that only a few nations have the ability to carry out space activities, the proposed body should offer exploring countries efficient guidance and impetus to develop their programs and conduct their activities in space.[86] The point here is to balance equity and efficiency.[87] While addressing the economic development of developing countries, an equitable and efficient governance regime should also be able to guarantee a sufficient return on investments[88] and enough profits for exploring entities in successful space activities.[89] Failing the latter can deter commercial activities in space. To promote fairness and maintain control, it is advisable to limit the years of the continued use of resources. Once the initial period expires, the private entity can apply for an extension of its license. On the other hand, the system of payments to the body should be

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[82] *See for example*, Sergio Marchisio, *Remote Sensing for Sustainable Development, in* OUTLOOK, *supra* note 28, at 348.

[83] *See* International Law Association Resolution 1/2002: Space Law (2002) [ILA Resolution].

[84] Outer Space Treaty, *supra* note 9, at art. 9.

[85] *Id.* at art. 1.

[86] James S. Trimble, *The International Law of Outer Space and Its Effect on Commercial Space Activity,* 11 PEPP. L. REV. 521, 530 (1984).

[87] This point was made in the context of geosynchronous orbital slots, but it applies equally to many other outer space resources. Finch, *supra* note 22, at 798. It also applies to the deep seabed. *See* Marietta Benko & Kai-Uwe Schrogl, *Article I of the Outer Space Treaty Reconsidered After 30 Years, in* OUTLOOK, *supra* note 28, at 69.

[88] Robert Rachlin, RETURN ON INVESTMENT STRATEGIES FOR DECISION-MAKING 2 (1987).

[89] Lawrence L. Risley, *An Examination of the Need to Amend Space Law to Protect the Private Explorer in Outer Space,* 26 W. ST. U. L. REV. 47 (1998-1999).

fair and reasonable.[90] The level of payments should be based on several factors: the investment made, profitability, the environment affected; the economic situation of affected States, etc. For this purpose, a special Finance Committee should be established to oversee financial issues. The body should monitor the development of outer space activities, establishing the level of payments in proportion to the scope of outer space activities.

Finally, while acknowledging that economic gain is the primary purpose for developing space resources, the proposed body should offer the opportunity to create a new paradigm that avoids past conflicts and promotes peace.[91] Ideally, space activities should be carried out in the interests of maintaining international peace and security.[92] Peaceful use of outer space, being the basic principle in international space law, should be upheld.[93] Particular attention should be paid to illegal activities, such as terrorist activities, that might be carried out in the name of commercialization. Furthermore, as provided in the Outer Space Treaty, States should pursue studies and conduct exploration of outer space so as to avoid harmful contamination and also adverse changes in the environment of the Earth.[94] Accordingly, the body should promote a co-operative environment for commercialization, reduce environmental impacts on Earth, and protect the terrestrial environment.[95]

VI. FORMULATION OF THE SPACE AUTHORITY

Several approaches have been suggested as institutional models for an ISA. They range from one similar to the Seabed

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[90] Carl Q. Christol, *Commercial Uses of Outer Space: Highlights of American Policies,* 10 ANNUAIRE DE DROIT MARITIME ET AEROSPATIALE 348 (1989); Carl Q. 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, 473 (1980). Private entities need attractive return on their research and development investment. *See* Richard A. Posner, *The Material Basis of Jurisprudence,* 69 IND. L.J. 1, 10 (1993).

[91] Reynolds, *supra* note 35, at 726.

[92] Outer Space Treaty, *supra* note 9, at art. 3.

[93] Fountain, *supra* note 76, at 1761-62.

[94] Outer Space Treaty, *supra* note 9, at art. 9.

[95] We should avoid a regime that will ultimately mirror the over-exploitation of resources and environmental havoc we have wreaked on Earth. *See* Fountain, *supra* note 76, at 1760.

Authority, to one that is more scientifically and technologically oriented to one that would serve as a subsidiary body under the International Civil Aviation Organization.[96] So what style should be adopted? The basic purpose of the proposed body is to have jurisdiction over development and exploitation of outer space resources for the benefit of all humankind.[97] An international authority will result in a more equitable distribution of benefits than will a private enterprise regime, which conversely might create a monopoly over space resources and exclude other public and private entities.[98] It is, thus, advisable that the body be an international governmental authority to which all countries can be members.

The UN is institutionally weak and incapable of enforcing any mandate;[99] while maintaining responsibility in a wide range of activities, it cannot respond effectively to resource development on celestial bodies.[100] Nevertheless, the UN is the body maintaining an important position in procuring the benefits of the international society. Therefore, it is necessary for the proposed body to have a relationship agreement with the UN. Considering similar political, economic and legal backgrounds, formulation of a body similar to the Seabed Authority is an appropriate means to reach a balance among developing and developed countries.

Two organs, the Assembly and the Council, can be established under the proposed ISA.[101] In the Assembly, all the mem-

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[96] Rao, *supra* note 18, at 205-06; *see also* Gennady M. Danilenko, SPACE LAW: VIEWS OF THE FUTURE 106-07 (Zwann, ed. 1988); A.S. Piradov, *Creating a World Space Organization,* 4 SPACE POL'Y 112 (1988); V. Vereschetin & E. Kamenetskya, *On the Way to a World Space Organization,* 12 ANNALS AIR & SPACE L. 337 (1987).

[97] G.A. Res. 1348, 13 U.N. GAOR Supp. (No. 18) at 5, U.N. Doc. A/4090 (1958).

[98] Fred Kosmo, *The Commercialization of Space: A Regulatory Scheme that Promotes Commercial Ventures and International Responsibility,* 61 S. CAL. L. REV. 1055, 1080-82 (1988); see also Berkley, *supra* note 14, at 437-38.

[99] Berlin & L. I. Tennen, *The Role of the United Nations in Colonization of Outer Space, or Chicken Little was Right,* 19 COLLOQUIUM ON THE LAW OF OUTER SPACE 215 (1977).

[100] Moses Moskowitz, THE ROOTS AND REACHES OF UNITED NATIONS ACTIVITIES AND DECISIONS 8 (1980).

[101] The Authority could have a secretariat. *See* Bruce Stockfish, *Space Transportation and the Need for New International Legal and Institutional Regime,* 17 ANNALS AIR & SPACE L. 359 (1992).

bers would be represented. It will formulate policy, elect officers, and approve budgets and rules. The Council elected by the Assembly, would be selected according to a formula ensuring equitable representation of countries from various groups. The Council is the executive body and responsible primarily for the administration of the space activities regime.

As discussed above, a Finance Committee can be established to take the role of financial and budgetary arrangements, including the draft financial rules, regulations, procedures of the organs, the financial aspects of the Authority's work, assessed contributions of the Authority's Members, project application fees and renewal fees, and most importantly, the level of payments (possibly in the form of tax) from exploring entities. The fees collected would be the Authority's primary source of income, covering its administrative costs, budgets for public research, and other activities.[102]

Taking the model of the Seabed Authority, a Legal and Technical Commission can be instituted, consisting of persons with appropriate qualifications relating to exploration, exploitation and processing of resources, environmental protection, and economic or legal matters relating to outer space. This Commission will undertake the task of supervising exploration and commercial activities, assessing the environmental impact of such activities, and making recommendations on environmental protection in outer space.[103]

A licensing system should be instituted.[104] An entity planning to exploit outer space resources should submit its proposal to the Authority and the Authority should have the power to decide on granting the request or not. The decision should be made based upon previously-determined criteria. A license could be renewed or revoked. No permanent property rights would be conferred by the license. Only the resources exploited by the licensed entity would come under its exclusive control.[105]

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[102] *See* IGA, *supra* note 4, at art. 15.

[103] *Id.* at art. 14, para. 4-5.

[104] *See* ILA Resolution, *supra* note 83.

[105] Allen Duane Webber, *Extraterrestrial Law on the Final Frontier: A Regime to Govern the Development of Celestial Body Resources,* 71 GEO. L.J. 1427, 1453-54 (1983).

The ISA would operate by contracting with private and public corporations and entities authorized to conduct specific activities and exploitation in outer space. The detailed tasks and duties of the ISA can follow the example of the Seabed Authority, subject to relevant modifications according to the specific situation in outer space.[106]

VII. CONCLUSION

Outer Space and its resources have been widely considered as the Common Heritage of Mankind. The concept of CHM *per se* has resulted in serious discussions. The ambiguous term is argued to be the obstacle to the commercial use of outer space.[107] In the absence of definite property rules and an enforcement authority, there is likely to be chaos in the commercialization of outer space. Both developing and developed countries recognize the importance of a stable regime fostering the exploration and development of outer space.[108] Some scholars have rightly suggested that it is time for scientists, engineers, lawyers, and management experts to develop a workable set of guidelines for space commercialization.[109]

A pragmatic approach is proposed in the present paper. The progress made on the UNCLOS led to an improved understanding of the CHM and suggests that the differences between developing and developed countries can be reconciled. While leaving the theoretical discussion of the term unresolved, formulation of an international body to address the use of outer space resources can begin. Whatever form it takes, the body should be able to address and further the common, equitable interests of the developing countries (the non-space powers), and the interests of developed countries (the space powers).[110] The proposed

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[106] Annex, *supra* note 57, at art. 1.

[107] Kosmo, *supra* note 98, at 1067.

[108] Webber, *supra* note 105, 1432-33.

[109] Eilene Galloway, *Status of the Moon Treaty,* SPACE NEWS, Aug. 3-9, 1998, at 21-22; Bin Cheng, *The Commercial Development of Space: The Need for New Treaties,* 19 J. SPACE L. 17, 43 (1991).

[110] Harminderpal Singh Rana, *The "Common Heritage of Mankind" & The Final Frontier: A Revaluation of Values Constituting the International Legal Regime for Outer Space Activities,* 26 RUTGERS L.J. 225, 250 (1994).

governance regime will try to encourage the beneficial aspects of property rights and formulate rules that discourage conflict and predation.[111]

While following the example of Seabed Authority, this paper proposes the establishment of an International Space Authority. The commercialization of outer space is no longer a fantasy. There is an urgent need to take a practical look at the issue and formulate feasible rules and organs to guard against taking the wrong direction. Humankind has taken the first tentative steps laying the technological foundation for commercial expansion. The challenge lying ahead is to build on the existing technological foundation and create the appropriate legal regime that will support and encourage this expansion.

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[111] Glenn Harlan Reynolds, *International Space Law: Into the Twenty-First Century,* 25 VAND. J. TRANSNAT'L L. 225 (1992).

CASE NOTE

NEMITZ v. UNITED STATES, A CASE OF FIRST IMPRESSION: APPROPRIATION, PRIVATE PROPERTY RIGHTS AND SPACE LAW BEFORE THE FEDERAL COURTS OF THE UNITED STATES

Robert Kelly[*]

I. FACTS AND DISPOSITION OF THE CASE BELOW

The present case involves Gregory W. Nemitz' (Appellant) assertion of private property rights in asteroid 433, "Eros" (hereinafter Eros). Eros is a large asteroid in stable orbit around the Sun.[1] On its closest orbit between the Earth and Mars, Eros was 14 million miles away.[2] The Appellant claims that his ownership of Eros is based on his registration on the Archimedes Institute website[3] and his filing of a California Uniform Commercial Code security interest, in which he named himself as both creditor and debtor.[4] The claim arises out of the February 12, 2001 land-

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[1] Eros has a reported mass of 7.2 x 10^{15} kg and has dimensions of 33 km x 13 km x 13 km. Gregory W. Nemitz, *The Eros Project Overview*, *at* http://www.erosproject.com/433erosproj.html?source=ErosProject (last visited Oct. 18, 2004).

[2] Appellee's Brief at 3, Nemitz v. United States (9th Cir. 2004) (No. 04-16223) [hereinafter Appellee's Brief].

[3] The Archimedes Institute, *at* http://www.permanent.com/archimedes (last visited Oct. 18, 2004).

[4] Nemitz v. United States, CV-N-03-0599-HDM-(RAM) (D. Nev. Apr. 27, 2004) (order granting defendant's motion to dismiss).

ing of NASA's *NEAR Shoemaker* spacecraft on Eros.[5] The Appellant claimed that the landing of the NASA spacecraft infringed his private property rights and that he should be compensated for "parking" and "storage" fees which total twenty cents per year.[6] He estimates Eros' initial value to be $8,000,000,000.[7] Every day the spacecraft remains on Eros without paying the claimed fees, the Appellant alleges that he is suffering special damages of $5,000,000 because he is legally inhibited from accessing the full value of the asteroid and proceeding with his planned developments.[8]

After an exchange of letters with NASA and the United States Department of State, the Appellant filed a complaint on November 6, 2003 in the United States District Court for the District of Nevada.[9] On January 28, 2004, the Federal Defendants filed a motion to dismiss pursuant to Section 12(b)(6) of the Federal Rules of Civil Procedure for failure to state a claim.[10] The motion to dismiss was granted by the District Court on April 27, 2004.[11] From that motion, appeal was taken to the Ninth Circuit Court of Appeals. The Appellant filed a motion for expedited review which was also denied by the Appellate Court.[12] As of this writing, the appeal is still pending.

"[The Appellant] originally advanced five causes of action: violation of the Fifth, Ninth, and Tenth Amendments to the U.S. Constitution, a breach of implied contract and violation of Public Law 85-568 § 102(c), (d)(9), which is codified at 42 U.S.C.

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[5] *Id.* The spacecraft landed in what Nemitz refers to as parking space #29. Gregory W. Nemitz, *The Eros Project for Space Property Law*, *at* http://www.erosproject.com (last visited Oct. 18, 2004).

[6] *Nemitz*, CV-N-03-0599-HDM-(RAM) (D. Nev. Apr. 27, 2004) (order granting defendant's motion to dismiss).

[7] Appellant's Informal Brief at 21-22, *Nemitz* (9th Cir. 2004) (No. 04-16223) [hereinafter Appellant's Brief].

[8] *Id.* at 26.

[9] Plaintiff's Complaint for Declaratory Judgment, Nemitz v. United States, CV-N-03-00599-HDM-(RAM) (Nov. 6, 2003).

[10] Defendant's Motion to Dismiss and Memorandum in Support Thereof, Nemitz v. United States, CV-N-03-00599-HDM-(RAM) (Jan. 28, 2004).

[11] *Nemitz*, CV-N-03-0599-HDM-(RAM) (D. Nev. Apr. 27, 2004) (order granting defendant's motion to dismiss).

[12] *Nemitz* (9th Cir. 2004) (No. 04-16223) (order denying Appellant's motion for expedited review).

2451(c), (d)(9)."[13] The District Court found the Appellant's property claims deficient because neither his registration with the Archimedes Institute website nor his filing under the California Commercial Code created any private property rights.[14] The District Court also held that "neither the Ninth nor Tenth Amendments provides a cognizable cause of action for the denial of a property interest in outer space."[15] The District Court further found that the Appellant did not seek a determination that he had ownership of Eros thus failing to assert a property interest capable of being protected.[16] Since the Appellant has no property interest to be "taken" any Fifth Amendment cause of action was also deficient.[17] The Appellant's claim under 42 U.S.C. §2451(c) and (d)(9) is also lacking because he did not establish that either provision creates a legal foundation for a claim of private property on Eros.[18] Lastly, the failure by the United States to sign the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies[19] (hereinafter Moon Agreement) or the signing and ratifying of the Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Ce-

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[13] *Nemitz*, CV-N-03-0599-HDM-(RAM), at 1 (D. Nev Apr. 26, 2004) (order granting defendant's motion to dismiss).

[14] "The Archimedes Institute registration on which he relies disclaims any authority to confer title or rights to property on its registrants. All the website does is create a registry." *Id.* at 2. "While Article 9 of the California Commerical Code sets forth a procedure for the regulation of security interests in property, it does not create a property interest in an asteroid." *Id.*

[15] *Id.* at 3.

[16] *Id.* at 2, lines 19-21.

[17] *Id.* at 2-3 (citing McIntyre v. Bayer, 339 F.3d 1097, 1099 (9th Cir. 2003)).

[18] 42 U.S.C. § 2451 (c) and (d)(9) are mandates by Congress to NASA to encourage "the fullest commercial use of space" and to preserve "the United States preeminent position in aeronautics and space."

[19] Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Dec. 18, 1979, 18 I.L.M. 1434; 1363 U.N.T.S. 3 [hereinafter Moon Agreement]. The United States has neither signed nor ratified the Moon Agreement, thus it is not considered binding. Also it has received very weak international support thereby defeating any argument that it would be binding as creating a norm of customary international law. The Appellate Court will therefore, more than likely not, give the Moon Agreement much consideration in its analysis.

lestial Bodies[20] (hereinafter Outer Space Treaty) did not provide for a right to private property on asteroids.

II. APPELLANT'S ARGUMENT

The Appellant proceeds on appeal, *pro se*, without the aid of an attorney.[21] On appeal he raises five sources of error. First, the Appellant claims that he has a natural right to the property and that the failure by the Government to recognize his property rights is a violation of the Fifth, Ninth and Tenth Amendments. Second, he claims that the Outer Space Treaty does not apply to him and that any application of the treaty would be unconstitutional. Third, he argues that the District Court erred in not reviewing the case in equity. The fourth, and last, legal argument is that NASA's actions are in contravention to its enacting legislation. This leads to the fifth and final argument which is based on policy. The argument is that to allow such an understanding to continue would lead to a chilling effect on the development of space related activities.

The Appellant concedes the fact that neither his filing under the California Commercial Code nor his registration on the Archimedes Institute website created a property right in Eros.[22] He explains that these actions were a means of publishing a claim which originated under his natural rights as an American.[23] The Appellant defines himself as a "'constitutional preamble' Person", which he argues means that he retains the power to act as a sovereign in all areas that the Federal Government has not affirmatively acted.[24] From this position the

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[20] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 1, 1967, 18 U.S.T. 2410; 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

[21] The Appellant is not an attorney nor has he had a legal education. The author has construed the Appellant's arguments in legal terms and with proper language. Each argument is followed by a detailed footnote quoting the exact language from the Appellant's brief so that the reader may see the original language and draw their own conclusions from that language.

[22] Appellant's Brief, *supra* note 7, at 20-21.

[23] "The true basis of his property claim is his own inherent republican sovereign authority to act Lawfully in an area where no legislated nor case law exists." *Id.* at 21.

[24] "Nemitz is a 'constitutional preamble' Person (sovereign), one of 'We the People', in a **Republic** (United States of America), not a 'democracy;' therefore he retains indi-

Appellant claims that he has the power to act, with constitutional protection, when there is an absence of statutory or other prohibition.[25] The Appellant claims that since the power to own or regulate the ownership of lunar and celestial property was not delegated by the Constitution to the Federal Government nor reserved to the States, it is retained by individuals as part of the unenumerated and reserved powers of the Ninth and Tenth Amendments.[26] Thus, the Government's failure to recognize his claim is a violation of the Ninth and Tenth Amendments.[27] The Government's refusal to pay the parking fees therefore is a "taking" which requires compensation under the Fifth Amendment.[28]

The Appellant asserts that Article II of the Outer Space Treaty, the non-appropriation clause, is not relevant to the case at hand because his right to own Eros does not derive from the treaty.[29] He argues that the District Court's analysis of Article II was irrelevant to the case and served only to find "created rights" which the Appellant did not need because he possessed "inherent rights".[30] The Outer Space Treaty is not relevant, in

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vidual sovereignty to lawfully act **directly** in areas where there is not legislation nor case law, such as property claims to celestial bodies." *Id.* at 15-16.

[25] "In the absence of any established legislated law or case law, an American sovereign such as Nemitz, lawfully and with constitutional protection, retains an inherent authority to act and proceed in his lawful capacity." *Id.* at 13.

[26] "Among rights recognized by Common Law and Rights protected by the Fifth, Ninth and Tenth Amendments to the Constitution of the United States of America remain a natural man's ability to originate a claim of private 'personal' property to an unowned asteroid orbiting the Sun **specifically** because that ability was not delegated as a power to the United States by that restrictive Constitution and that power to originate property has **never** been claimed by any of the fifty states respectively." *Id.* at 14.

[27] "The Department of State's and NASA's official determination and conclusions of law construe to violate the Rights of Nemitz protected by the Ninth Amendment to the Federal Constitution. The US/USA are prohibited by this Amendment from construing to deny or disparage unenumerated and retained rights have violated the rights of this free and natural, living man (Nemitz) to claim and own an asteroid as private property." *Id.* at 7.

[28] *Id.* at 6.

[29] "Nemitz's Right to establish such a property claim is based upon his inherent sovereign lawful authority that precedes the treaties. Nemitz holds no basis of reliance whatsoever in either treaty for perfecting his property claim to Asteroid 433, Eros." *Id.* at 25.

[30] "The District Court looks to the treaty for 'created rights', finds none, and ignores or misapprehends the unrebutted evidence presented that Nemitz's Lawful Rights do indeed proceed and supercede the treaty." *Id.* at 10.

the Appellant's view, because it does not apply to him. He never granted the United States Government the right to act in this manner nor has he acted in any manner that could strip him of his "sovereign" authority to enter into agreements of this type.[31] Since he personally never entered into such an agreement nor was the power explicitly delegated to the Government to regulate this conduct, he claims that the Outer Space Treaty cannot strip him of a constitutionally protected right.[32] The Appellant contends that if the Outer Space Treaty was to be read contrary to his interpretation, and thus prohibiting his ownership of Eros, it would be communistic and therefore unconstitutional.[33]

The Appellant's third claim of error was that the District Court misconstrued his request for relief by failing to address his claim for equity. The Appellant argues that the District Court erred because they considered only what he characterizes as "legal" or "at law".[34] The Appellant claims that the Court was never cognizant of what he characterizes as "lawful" or "equity".[35]

The last legal claim is that NASA's determination is counter to its enacting legislation. 42 U.S.C. §2451(c) charges NASA with the duty to "seek and encourage, to the maximum extent possible, the fullest commercial use of space." The Appel-

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[31] "Nemitz presented unrebutted evidence ... that he has never knowingly entered into any commercial or political agreement that abrogates his rights or sovereignty." *Id.* at 16.

[32] "The Department of State's and NASA's Official determination and conclusions of law violate the rights of Nemitz protected by the Tenth Amendment to the Federal Constitution. The power to prevent any natural man of one of the several states from claiming and owning an asteroid as an individual's private property was never delegated to the United States government by the Federal Constitution and has never been claimed, declared or reserved by any one of the several states, thus all such powers are reserved to the People. The United States Senate's act of ratification of the Outer Space Treaty **cannot abrogate** that Constitutional power reserved to the People." *Id.* at 7-8.

[33] "It is unimaginable that when the Outer Space Treaty was being negotiated with the Soviet Union in the United Nations, during 1966-67 at the height of the Cold War, that the American delegation intended for our American society's fundamental order of private property rights should be completely withheld from the People who will conduct their business and their lives in outer space . . . (such determinations) are as if the United States of America and the United States were dominated by Communist regimes." *Id.* at 29-30.

[34] *Id.* at 17.

[35] *Id.* at 23.

lant claims that NASA's refusal to acknowledge his claim violates that legislation.[36] This leads to the Appellant's policy argument that failure to recognize his claim will lead to a chilling effect on future space commerce and the development of space resources.[37] He asserts that in keeping with traditional economic theory, Government regulation is contrary to the interests of the development of new industries and that such activities are best left to private commercial enterprises.[38]

III. APPELLEE'S ARGUMENT

The Federal Appellees argue that the District Court correctly dismissed the case because "a court should grant a motion to dismiss under Fed. R. Civ. P. 12(b)(6) when the plaintiff's complaint, even liberally construed, fails to state a cognizable legal theory."[39] The Appellees state the Appellant's claim, that his "natural right" to have a property interest in Eros protected by the Constitution, is without basis.[40] It is their contention that the Constitution does not create property rights; but they are established by independent sources like state law.[41] The Appellant's claim that the Ninth and Tenth Amendments protect his property right in Eros is incorrect because these amendments are rules of interpretation and not a source of rights.[42] The rights which exist under the Ninth Amendment

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[36] *Id.* at 24.

[37] "If the District Court's Order is allowed to stand, and the Complaint is not adjudicated to nullify the United States Department of State's Official Determination in this matter, a major 'chilling effect' on the potential for trillions of dollars of lawful commerce in Space will prevent or substantially delay human progress at recovering the vast and valuable resources on celestial bodies." *Id.* at 9.

[38] "Since shortly after the publication of Adam Smith's "Wealth of Nations" in 1776, it is widely acknowledged and accepted that the **most efficient means** of economic development are accomplished by free people acting in the free market with control of **private property**." *Id.* at 23-24.

[39] Appellee's Brief, *supra* note 2, at 6-7 (citing SmileCare Dental Group v. Delta Dental Plan of Cal., Inc., 88 F.3d 780, 783 (9th Cir. 1996)).

[40] *Id.* at 9.

[41] *Id.* (citing Board of Regents of State Colleges v. Roth, 408 U.S. 564, 577 (1972)). "(The Ninth and Tenth Amendments) are meant to serve as a guide for constitutional interpretation rather than as a blanket grant of substantive rights." *Id.* at 12.

[42] *Id.* at 11 (citing Froehlich v. Department of Corr., 196 F.3d 800, 801 (7th Cir. 1999)).

are those that are not found in other Constitutional provisions, but "that are 'so basic and fundamental and so deep-rooted in our society' to be truly 'essential rights.' "[43] The Appellees claim that these protected rights are in their very substance different from the right to own lunar and celestial property.[44] The Appellees point out that the Appellant has acknowledged, in his brief, that no support for his claim can be found either in statute or common law and since the Constitution does not create a right, there is no basis for granting him relief.[45] Without that source, the Appellant has conclusively failed to demonstrate a basis for his "natural right" except for his own claim.[46] As a matter of law the Appellant is not permitted to receive a declaration perfecting ownership without demonstrating a legal basis for such ownership.[47]

The Appellees state that the Appellant's assertion of ownership is merely "a conclusory allegation, and his claim for a declaratory judgment affirming his ownership of Eros is entirely void of any legal or factual basis."[48] Nowhere in his brief or complaint has the Appellant demonstrated an act of ownership or use that would bolster his claim.[49] In the end the Appellant has only an expectation of ownership, and a "mere unilateral expectation is not a property interest entitled to protection."[50] Property law seeks to protect claims which people rely upon in their day-to-day lives not mere expectations.[51] As a result the Appellees assert that the Appellant has failed to provide a basis upon which the District Court could award relief.[52] Further, since there is a complete absence of any showing of a property interest in Eros, the District Court did not have to construe the

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[43] *Id.* (citing United States v. Choate, 576 F.2d 165, 181 (9th Cir. 1978)).

[44] *Id.*

[45] *Id.* at 9.

[46] *Id.* at 12.

[47] *Id.* at 8 (citing King County v. Rasmussen, 299 F.3d 1077, 1089 (9th Cir. 2002), *cert denied*, 538 U.S. 1057 (2003) ("dismissing a takings claim in the absence of a finding that the Rasmussens owned the uncontested land.")

[48] *Id.* at 11.

[49] *Id.* at 12.

[50] *Id.* (citing *Roth*, 408 U.S. at 577).

[51] *Id.* at 9 (citing *Roth*, 408 U.S. at 577).

[52] *Id.* at 7-8.

Outer Space Treaty nor answer the question of whether or not the treaty prohibited private ownership of lunar or celestial property.[53]

IV. ANALYSIS

The Appellant advances a number of creative and original claims in his argument, but he is limited by the fact that he is neither a lawyer nor a legal scholar. The Appellant argues his position in a legal vacuum and without knowledge of U.S. national and international space law. In his informal brief he cites only tangentially to any recognized legal opinion to support his claim. The failure to know and correctly use the formal body of law developed on this topic will more than likely be fatal to his claim.

Regrettably, both parties in this dispute seek to determine whether or not the Appellant has an existing property right in a particular asteroid, rather than asking the real question: does the Appellant have the legal capacity to possess a property right in the asteroid? The great underlying question in this dispute is whether or not natural persons, corporations or non-governmental entities have the legal capacity to appropriate lunar and celestial property without violating the Non-appropriation Clause of Article II of the Outer Space Treaty.[54] The purpose of this section is to provide support for the argument that no natural person, corporation or non-governmental entity, may appropriate lunar or celestial property. To do so, would allow a State to appropriate space through the actions of its nationals and thereby circumvent the prohibition of Article II of the Outer Space Treaty.

The fundamental principle of the Outer Space Treaty, found in Article I, recognizes the right of States to the free use and exploration of outer space.[55] Article II "was adopted to imple-

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[53] *Id.* at 8.

[54] "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." [54] Outer Space Treaty, *supra* note 20, at art. II.

[55] "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 a basis of equality

ment the freedom of use principle, as appropriation undermines freedom of use."[56] One State's appropriation of an area of outer space, or a celestial body, permanently denies every other State the right to freely use and explore that unique territory. This is antithetical to Article I.[57] The purpose of these articles is to protect space from Earthbound conflicts. They are intended to keep war and violence from spreading into outer space.[58] "By removing the common cause of disputes from outer space, armed conflict would be confined to the terrestrial environment thereby reducing the costs of space exploration."[59]

Clearly the Outer Space Treaty prohibits appropriation by a State. However, private appropriation is not directly addressed in Article II.[60] Article II does not explicitly prohibit appropriation by natural persons, corporations or non-governmental entities.[61] Prior to the drafting of the Outer Space Treaty, several international NGOs and legal organizations presented drafts, which contained explicit prohibitions, targeted at private entities, which were not incorporated into the final draft of the Outer Space Treaty.[62] This lends support to the argument that

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and in accordance with international law, and there shall be free access to all areas of celestial bodies." *Id.* at art. I.

[56] Susan Cahill, Note and Comment, *Give Me My Space: Implications for Permitting National Appropriation of the Geostationary Orbit*, 19 WIS. INT'L L.J. 231, 236 (2001).

[57] Jannat C. Thompson, Comment, *Space for Rent: The International Telecommunications Union, Space Law, and Orbit/Spectrum Leasing*, 62 J. AIR L. & COM. 279, 306 (1996).

[58] Leslie I. Tennen, Article II of the Outer Space Treaty, the Status of the Moon and Resulting Issues, presentation at the IISL/ECSL Space Law Symposium (Mar. 29, 2004) (PowerPoint presentation on file with author).

[59] *Id.* "The risk of disputes between competing claimants in space would be significant, and armed conflicts beyond the confines of this planet become not merely foreseeable but inevitable. Thus, an atmosphere of insecurity would pervade the outer space environment, and the cost of conducting missions would increase in direct proportion to the defensive planning, armaments and weaponry made necessary for protection of personnel and spacecraft. *Id.* at 5.

[60] Lynn M. Fountain, Note, *Creating Momentum in Space: Ending the Paralysis Produced by the "Common Heritage of Mankind" Doctrine*, 35 CONN. L. REV. 1753, 1753 (2003).

[61] *Id.* at 1763.

[62] Setsuko Aoki, *Commentary on Emerging System of Property Rights in Outer Space, in* PROCEEDINGS: UNITED NATIONS/REPUBLIC OF KOREA WORKSHOP ON SPACE LAW: UNITED NATIONS TREATIES ON OUTER SPACE: ACTIONS AT THE NATIONAL LEVEL 59, 60 (2004).

private appropriation might be tolerated by the Outer Space Treaty.

Taking the principles of the Outer Space Treaty as a whole, it is clear that "national appropriation includes all forms of appropriation whether national, private or otherwise."[63] Until recognized by a sovereign State, a natural person's, corporation's or non-governmental entity's control of previously unoccupied land is merely a fact of occupation.[64] It is not until that occupation is recognized by the sovereign that a property right vests in the natural person, corporation or non-governmental entity.[65] This requires some type of state action to legitimate control, which would be seen as appropriation under the pretext of national authority, if not national appropriation via the recognition of control itself. By this reasoning a State's recognition of the claims of its nationals to lunar or celestial property would violate the "by any other means" clause of Article II of the Outer Space Treaty.[66]

The Outer Space Treaty, like all treaties, is not intended to be read article by article, but rather as a whole.[67] Article II cannot be read by itself but should be read in conjunction with the other articles of the Outer Space Treaty. Article VI of the Outer Space Treaty defines the term 'national' as including non-

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[63] Hongkyun Shin, *Emerging System of Property Right in the Outer Space, in* PROCEEDINGS: UNITED NATIONS/REPUBLIC OF KOREA WORKSHOP ON SPACE LAW: UNITED NATIONS TREATIES ON OUTER SPACE: ACTIONS AT THE NATIONAL LEVEL 50. *See also* Statement by the Board of Directors of the International Institute of Space Law on Claims to Property Rights Regarding the Moon and other Celestial Bodies, *available at* http://www.iafastro-iisl.com/additional%20pages/Statement_Moon.htm (2004) [hereinafter Statement by the Board of Directors].

[64] Aoki, *supra* note 62, at 61.

[65] *Id.*

[66] Leslie I. Tennen, *Second Commentary on "Emerging System of Property Right in the Outer Space, in* PROCEEDINGS: UNITED NATIONS/REPUBLIC OF KOREA WORKSHOP ON SPACE LAW: UNITED NATIONS TREATIES ON OUTER SPACE: ACTIONS AT THE NATIONAL LEVEL 67 [hereinafter *Commentary*].

[67] "A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose." Vienna Convention on the Law of Treaties, May 23, 1969, art. 31(1), 1155 U.N.T.S. 331, 8 I.L.M. 679. The term "context" is later explained to mean "the text, including its preamble and annexes." *Id.* at art 31(2).

governmental entities.[68] Non-governmental entities have been interpreted to mean private parties, whether natural persons or corporations.[69] Thus, the Outer Space Treaty prohibits national appropriation, because when the treaty is read as a whole private appropriation is part of the definition of national appropriation.

Drawing further from Article VI, States "bear international responsibility" for the acts of their nationals in outer space.[70] Thus, the appropriation of a national, if recognized or legally sanctioned by the State, would create international responsibility on that State for their national's actions.[71] Also, it would be illogical to believe that a State could authorize a private actor to act when the State itself is denied the same action.[72] To do so would allow States to circumvent treaty obligations by delegating authority to act in unauthorized manners to non-state actors.[73]

V. CONCLUSION

The law on this issue is clear. The Appellant does not present a claim for which the District Court may provide relief. The Appellant presents no legal or factual evidence for the source of his "natural right" in Eros. He merely claims that this right lies within the unenumerated rights of the Ninth and Tenth Amendments. These Amendments have never been interpreted to create property rights. Thus, the Appellant's claim

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[68] "States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty." Outer Space Treaty, *supra* note 20, at art. VI.

[69] Statement by the Board of Directors, *supra* note 63.

[70] Outer Space Treaty, *supra* note 20, at art. VI.

[71] "According to international law, States party to a treaty are under a duty to implement the terms of that treaty within their national legal systems. Therefore, to comply with their obligations under Articles II and VI of the Outer Space Treaty, States Parties are under a duty to ensure that, in their legal systems, transactions regarding claims to property rights to the Moon and other celestial bodies or parts thereof, have no legal significance or recognised legal effect." Statement by the Board of Directors, *supra* note 63.

[72] Aoki, *supra* note 62, at 61.

[73] *Commentary*, *supra* note 66, at 69.

is without merit and cannot survive a Federal Rules of Civil Procedure Section 12(b)(6) motion to dismiss for failure to state a claim.

The case does contain an interesting issue, but which was not raised by the parties and therefore which, regrettably, the court will not address: whether or not Article II and Article VI of the Outer Space Treaty allow for private ownership of lunar or celestial property. Appropriation of lunar and celestial property by natural persons, corporations and non-governmental entities is prohibited by Article II and VI of the Outer Space Treaty for three reasons. First, natural persons, corporations and non-governmental entities may act in outer space only with the authorization and under the supervision of States. If a government was to recognize an appropriation made by one of them, it would constitute national appropriation "by any other means". Second, Article VI of the Outer Space Treaty defines "national" to include non-governmental entities such as natural persons and corporations. If these actors are viewed as national then their appropriation is likewise national. Third, if private actors were allowed to appropriate lunar and celestial property, then it would allow States to circumvent their treaty obligations merely by delegating authority to act in otherwise unauthorized manners to non-state actors. This is not to say that natural persons, corporations and non-governmental entities might not be able to acquire some types of property interests in lunar and celestial property or engage in some types of private activities. That is not the focus of this study. This merely means that they are prohibited from appropriating lunar and celestial property.

COMMENTARY

MAINTAINING INTERNATIONAL SPACE COOPERATION FOR PEACEFUL USES

Eilene Galloway[*]

The dramatic orbiting of *Sputnik* over all nations on October 4, 1957 raised fears of weapons of mass destruction, but nations responded by organizing with hope for peace. International space cooperation has brought the world 47 years of safety and order to develop benefits for all humankind: profitable global satellite communications systems, new industries from remote sensing, economic savings from improved meteorology, advances in agriculture, medicine, and many more applications from knowledge obtained from space. This is a remarkable achievement that we must protect against any influence that could destroy the system of international space cooperation.

Now, demands for private property rights on the Moon and other celestial bodies are threatening to destroy the existing international system, and without regard for consequences such as conflicting national claims, and the inability to use such property because of hazardous conditions and cost.

The idea of owning space property began when an unauthorized individual decided to sell lots on the Moon. At first, this action was regarded as an amusing fantasy, but the seller profited from the sale and the practice, now followed by imitation, is regarded by most space law experts as unlawful.

However, no official action has been taken to stop such claims, and the idea has spread. The "Report of the President's Commission on Implementation of United States Space Explo-

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ration Policy"[1] (June 2004) called attention to the United States being signatory to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies[2] which prohibits claims of national sovereignty on any extraterrestrial body. The Commission recommended that Congress "increase the potential for commercial opportunities...by assuring appropriate property rights for those who seek to develop space resources and infrastructure."[3]

This recommendation is not based on all the facts essential for analyzing the question of property rights in connection with Article II, 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, or by any other means.[4]

This policy has been adhered to by all nations since 1957-58, even before the Outer Space Treaty was completed, because sovereign claims were judged to be a potential cause for conflict and war. The United States played a leading role in the adoption of this policy. As satellites orbit quickly over all nations while preserving safety and order, the policy is recognized as international customary law.[5]

We have proved that outer space can be used for a variety of humanitarian, commercial, and beneficial purposes without the necessity for ownership. The global satellite communication industry alone produces millions of dollars in profits.

We must recall the dramatic incident in American history when President Eisenhower asked Lyndon Johnson, then the

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[1] REPORT OF THE PRESIDENT'S COMMISSION ON IMPLEMENTATION OF UNITED STATES SPACE EXPLORATION POLICY, A JOURNEY TO INSPIRE, INNOVATE, AND DISCOVER, (June 2004), *available at* http://www.nasa.gov/pdf/60736main_M2M_report_small.pdf (last visited Oct. 29, 2004) [hereinafter PRESIDENT'S COMMISSION REPORT].

[2] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 1, 1967, 18 U.S.T. 2410; 610 U.N.T.S. 205. [hereinafter Outer Space Treaty].

[3] PRESIDENT'S COMMISSION REPORT, *supra* note 1, at 33, Recommendation 5-2.

[4] Outer Space Treaty, *supra* note 2, at art. II.

[5] Kerrest Armel, *New Developments in the Legal Framework Covering the Exploitation of the Resources of the Moon*, *in* IISL/ECSL SPACE LAW SYMPOSIUM (2004).

Majority Leader of the Senate, to go to the United Nations on November 17, 1958 and promote U.S. foreign policy by persuading other nations to join us in creating the Ad Hoc Committee on the Peaceful Uses of Outer Space. Senator Johnson pointed out that the President was a Republican while he was a Democrat, and said:

> These are distinctions. They are not, on this Resolution, differences. On the goal of dedicating outer space to peaceful purposes for the benefit of all mankind there are no differences within our Government, between our parties, or among our people. The executive and the legislative branches of our Government are together. United we stand.[6]

On September 22, 1960, President Eisenhower addressed the United Nations General Assembly on the opportunity to control the future of outer space, proposing that—

1. We agree that celestial bodies are not subject to national appropriation by any claims of sovereignty.

2. We agree that the nations of the world shall not engage in warlike activities on those bodies.

3. We agree, subject to appropriate verification, that no nation will put into orbit or station in outer space weapons of mass destruction. All launchings of space craft should be verified in advance by the United Nations.

4. We press forward with a program of international cooperation for constructive peaceful uses of outer space under the United Nations. Better weather forecasting, improved world-wide communications, and more effective exploration not only of outer space but of our own earth—these are but a few of the benefits of such cooperation.[7]

The initiative of President Eisenhower in starting the process that led to creation of the U.N. Committee on Peaceful Uses

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[6] FINAL REPORT OF THE SENATE COMMITTEE ON SPACE AND ASTRONAUTICS. S. REP. NO. 100, 1st Sess., at 58 (1959).

[7] President Eisenhower's Address to the General Assembly of the United Nations, 1960 PUB. PAPERS 714-15 (1960).

of Outer Space (UNCOPUOS) in 1959 led to the formulation of space treaties which furthered the application of space science and technology for beneficial uses. The Committee's membership, today representing 65 nations, makes all decisions by consensus. The 1967 Outer Space Treaty reiterated the space policy against national claims for sovereignty that has been followed since the space age began. This Treaty has been ratified by 98 nations and signed by 27 others.[8]

The problem created by advocates of property rights in space and on celestial bodies cannot be solved by a unilateral attack on the 1967 Outer Space Treaty. The proposal evidently arises from the unquestioned assumption that an accepted practice on Earth can automatically be transferred to outer space. Actually, all space activities must conform by means of space science and technology to the unique condition of the outer space environment which is lethal, hostile to humans and vehicles, and extremely expensive to develop. We could expect rival claims among nations. Who would decide what is "appropriate" for private property rights? How could we have an efficient system if some nations permit private property rights and others do not? Exactly what rights are being considered? And how would a divided world system adjust to the fact that every nation has the right of self defense? All the probable consequences of such a proposal have not been thought through.

The irony is that the issue of private property rights in space can be solved without threatening the existing successful system of international cooperation. A study should be made of all the private entities that make profits from property they do not own. For example, fishing from the ocean, logging from public forests, drilling oil from the Gulf of Mexico, running hotels in public parks, and mining for minerals from the bottom of the sea. If difficulties arise, such as a diminishing supply of fish, the problem can be settled by negotiation. Even now we do not need to own parts of outer space in order to make profits from space applications. Commercial space uses are apt to differ, but

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[8] *Status of International Agreements Relating to Activities in Outer Space* as at *1 January 2004*, U.N. Treaties and Principles on Outer Space, Addendum, Ref.: Sales No. E.02.I.20, ST/SPACE/11/Add.1/Rev. 1 (2004).

their unique characteristics could be accommodated as long as they are in compliance with the safety and order required for maintaining peace. This study should lead to action for positive results in dealing with the problem of private property rights. We have the responsibility of preserving Article II from attack.

The United States should decide how to implement its international responsibility for national space activities, particularly in connection with U.S. sellers of deeds to the Moon and other celestial bodies. Article VI of the Outer Space Treaty provides that "The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision."

The Board of Directors of the International Institute of Space Law concluded in 2004 that "[t]he sellers of such deeds are unable to acquire legal title to their claims...[which] have no legal value," "States party to a treaty are under a duty to implement the terms of that treaty within their national legal systems," and such "claims to property rights to the Moon and other celestial bodies or parts thereof, have no legal significance or recognised legal effect."[9]

The United States Government should designate an agency to be responsible for supervising such unlawful national activities as soon as possible to stop the unmanageable growth of unauthorized sales.

The problem created by proposals unfavorable to the policy of non-sovereign claims to outer space and celestial bodies could be handled by the Department of State in cooperation with NASA.

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[9] Statement by the Board of Directors of the International Institute of Space Law on Claims to Property Rights Regarding the Moon and other Celestial Bodies, *available at* http://www.iafastro-iisl.com/additional%20pages/Statement_Moon.htm (2004).

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IV. RUSSIAN SPACE LAW*

Presidential edict, *On the System and Structure of Federal Organs of Executive Power*, gave the Russian Aerospace Space

* This section was provided by Ms. Maria Nikolaevna Bjornerud, a third year law student at the University of Mississippi School of Law, student researcher at the National Remote Sensing and Space Law Center, JOURNAL OF SPACE LAW editor, and associate member of the American Translators Association.

Agency new ministerial status, in order to speed up and simplify the procedures dealing with international activities.[1]

The Russian Aerospace Agency was transformed into the Federal Space Agency by Presidential Edict No. 649, *Questions of the Structure of Federal Organs of Executive Power*, of May 20, 2004.[2] The Space Agency is no longer a separate operating agency under the purview of the Deputy Prime Minister but is now subordinated to the Ministry of Industry and Energy.[3] Nevertheless, the agency can hold direct negotiations and sign contracts with foreign partners, issue licenses for space activities and solve all management issues concerning space-related enterprises and facilities.[4] The agency is no longer in charge of the aviation industry, which used to drain the budget allocated to space activities.[5]

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[1] Presidential Edict No. 314 of March 9, 2004. See Resolution No. 195 of April 8 2004, available at http://www.government.gov.ru/data/news_print.html?he_id=103&news_id=14024 (last visited Oct. 14, 2004).

[2] See Questions of the Structure of Federal Organs of Executive Power, Presidential Edict No. 649 of May 20, 2004, available at www.government.ru (last visited : Oct. 14, 2004).

[3] *Id.*

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[5] *Id.*

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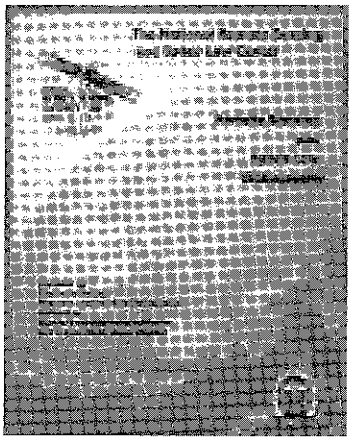

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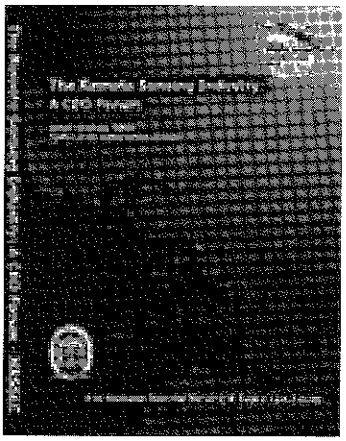

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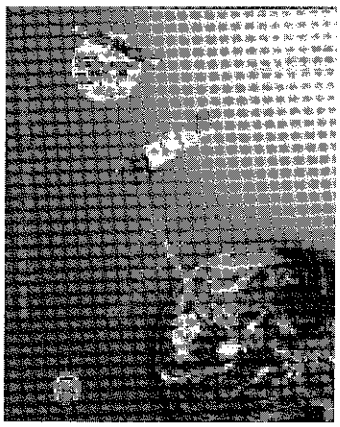

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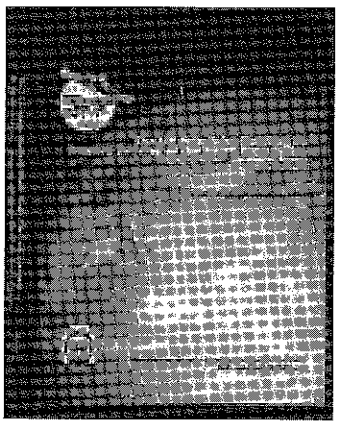

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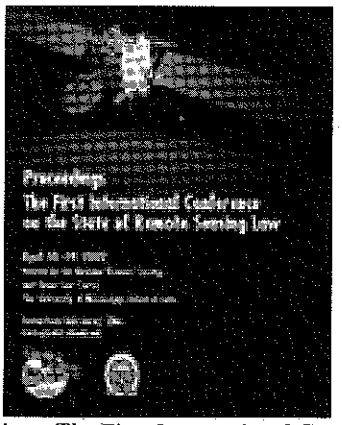

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