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May 5, 1999

EX PARTE OR LATE FILED

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RECEIVED

MAY 5 1999

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: **EX PARTE**  
ET Docket 95-18

Dear Ms. Salas:

ICO Services Limited ("ICO") submits for the record in the above-captioned proceeding the attached Legal Opinion prepared at the request of ICO by Dr. Ram Jakhu, associate professor, Institute of Air and Space Law, Faculty of Law, McGill University, Montreal, Canada. Dr. Jakhu, a recognized authority on the law of outer space, has concluded that requiring non U.S. licensed satellite systems to pay the relocation costs of incumbent licensees as a condition of U.S. market entry violates the 1967 Outer Space Treaty.

Dr. Jakhu concludes that the imposition of relocation costs on non-U.S. licensed satellite providers: (1) implies the grant of, or recognition of, property rights in outer space of U.S. licensed terrestrial wireless systems which is clearly prohibited by the provisions of Article I of the 1967 Outer space Treaty; (2) is a restriction on non-U.S. licensed satellite systems, which is clearly prohibited by the 1967 Outer Space Treaty; and (3) is contrary to general international law because the requirement constitutes an abuse of a non-U.S. satellite provider's rights by the U.S. by creating an injurious financial burden on accessing outer space by non-U.S. satellite systems.

Dr. Jakhu's conclusions support ICO's position stated in its Petition for Further Limited Reconsideration filed in the above-captioned proceeding on January 19, 1999, that the imposition of incumbent licensee relocation costs on 2 GHz mobile satellite service providers violates the 1967 Outer Space Treaty.<sup>1</sup>

<sup>1</sup> Petition For Further Limited Reconsideration, ET Docket No. 95-18, at n.20 (filed Jan. 19, 1999).

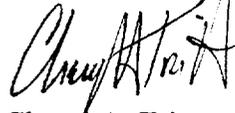
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Magalie Salas  
May 5, 1999  
Page Two

An original and one copy of this letter have been submitted to the Secretary of the Commission for inclusion in the public record, as required by Section 1.1206 (b)(2) of the Commission's Rules.

Very truly yours,



Cheryl A. Tritt  
Counsel for ICO Services Ltd.

Attachment

cc: Dale Hatfield  
Rebecca Dorch  
Julius Knapp  
Geraldine Matisse  
Sean White  
Roderick Porter  
Linda Haller  
Tom Tycz  
Karl Kensinger

## A LEGAL OPINION ON

**The extent to which the FCC's imposition of relocation costs on 2 GHz MSS systems, including global satellite systems, which are authorized by non-US governments, is a violation of the Outer Space Treaty.**

by

Dr. Ram Jakhu\*

April 24, 1999

### **Introduction:**

The imposition of relocation costs by the United States' Federal Communications Commission (FCC) on the non-US global satellite systems<sup>1</sup>, which provide or would provide Mobile Satellite Services, is a violation of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies<sup>2</sup> (1967 Outer Space Treaty) because such imposition implies the recognition of the private property rights in outer space<sup>3</sup>, the acquisition and retention of which is prohibited by this Treaty.

Since the dawn of the space age, some fundamental principles of international space law have been elaborated in an international convention; i.e. the 1967 Outer Space Treaty. These principles have become a part of customary international law; and thus they are considered binding on all States as regards access to and use of outer space. The two most important legal principles that have direct bearing on the issue at hand are the "Freedom of Use of Outer Space" and the "Non-Appropriation of Outer Space". They are analyzed here to better understand the specific rights and duties of the States, particularly those that are Parties to this Treaty, including the United States and the United Kingdom.

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\* LL.M., D.C.L.; Associate Professor, Institute of Air and Space Law, Faculty of Law, McGill University, Montreal, Canada; and formerly the Director of the Master of Space Studies program, International Space University, Strasbourg, France. (For details, see his attached resumé)

<sup>1</sup>. Such as those of ICO, TMI, Skybridge, etc.

<sup>2</sup>. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies; entered into force on 10 October 1967. 18 U.S.T. 2410; 610 U.N.T.S. 205. At present, there are 93 States Parties to this Treaty, including the United States and the United Kingdom.

<sup>3</sup>. The height of the lowest perigee of a satellite (or 100 or 110 Kms above the sea level) is obviously and logically a demarcation line between air space and outer space. Any device (i.e. satellite) "placed" above this height would certainly be considered to "be" in outer space, though the question of where does outer space begin is still not officially resolved internationally.

## The Acquisition and Retention of Property Rights in Outer Space

### Freedom of Use of Outer Space

The 1967 Outer Space Treaty, under Article I paragraph 2, specifies that: "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 and in accordance with international law". This is an essential extension or consequence of the common interest principle as specified in Article I paragraph 1 of the 1967 Outer Space Treaty; i.e. "the exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and the interests of all countries". In other words, outer space, including Earth's orbits, cannot be explored and used for the benefit and in the interests of all countries unless all States are free to do so.

The freedom of use of outer space was expressly declared in United Nations General Assembly (UNGA) Resolution No. 1721 XVI of 1961 and also Resolution No. 1962 XVII of 1963. Since these Resolutions (Declarations) are viewed as having enunciated legally binding principles and the freedom principle has been incorporated *in toto* in the 1967 Outer Space Treaty, it is generally considered that it has become a part of customary international law that is binding upon all States, whether they are Parties to the 1967 Treaty or not.<sup>4</sup> This principle was not challenged until the 1976 Bogota Declaration.<sup>5</sup> Under this Declaration, a number of equatorial States declared their sovereignty over those portions of the geostationary orbit that are above their national territories. These claims of the equatorial States have generally been dismissed as contrary to the established principles of international law,<sup>6</sup> and thus do not seem to have affected in anyway the universal validity of the freedom principle.

Although the terms "exploration" and "use" are not defined in the 1967 Outer Space Treaty, they are generally understood to mean what their natural/normal sense conveys and to include exploitation of this environment for the practical application of space technology. The phrase "all States" does not mean that only "States" are allowed to explore and use outer space. This freedom extends to States, their private natural or

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<sup>4</sup> See Vlastic, I.A., "The Growth of Space Law 1957-65: Achievements and Issues", 1965, Yearbook of Air and Space Law, p. 365, pp. 379-380. See also Matte, N.M., Aerospace Law: Telecommunications Satellites, 1982, pp. 30-31, fn. 60 to 62.

<sup>5</sup> See "Declaration of the First Meeting of Equatorial Countries", signed in Bogota, December 3, 1976, by Brazil, Colombia, Congo, Ecuador, Indonesia, Kenya, Uganda, Zaire (hereinafter cited as the Bogota Declaration). The Declaration is reprinted in Jasentuliyana, N. and Lee, R.S.L. (eds.), Manual on Space Law, 1979, Vol. II, pp. 383 et seq.

<sup>6</sup> See Jakhu, R. S., "The Legal Status of the Geostationary Orbit.", VII, Annals of Air and Space Law, 1982, pp. 333 et seq.

legal persons under their authority and supervision, and to the international organizations of which they are members.<sup>7</sup>

The freedom of use of outer space is not absolute, but rather an attribute of State sovereignty which may be referred to as independence or freedom of action.<sup>8</sup> Since this sovereignty is not outside or above the law, freedom of action can thus be exercised only within the limitations prescribed and to the extent allowed by law.<sup>9</sup> While Article I, paragraph 2, of the Outer Space Treaty entitles all States to freedom of action, such freedom is allowed to be exercised only "without discrimination of any kind", "on a basis of equality", and "in accordance with international law".

The phrase "without discrimination of any kind", read in conjunction with the Preamble and provisions of Article I paragraph 1 of the 1967 Outer Space Treaty, implies that the lateness in use by some States is not a reason for their freedom to be jeopardized by the first comers. Similarly, if certain States are able, only at a later stage, to make use of outer space, their freedom shall not be circumscribed by those States that have already placed their satellites in orbits, geostationary and/or non-geostationary.

"On the basis of equality" refers to the equal rights of all States to explore and use outer space; but, there are no provisions in the Treaty to indicate what "equality" means; i.e. equity in law or in fact. Since all States are not equal in fact, "equality" in Article I, paragraph 2 must refer to equality in law; i.e. *de jure* equality or "sovereign equality" as recognized in Article 2(1) of the Charter of the United Nations.<sup>10</sup> Since absolute freedom of action may lead to chaos, emphasis on the equality of States serves to guarantee the protection of the rights of all States.

Article I paragraph 2, as well as Article III, of the 1967 Treaty require that space activities must be carried out in accordance with international law, including the Charter of the United Nations. It is interesting to note that while Article III enunciates the general principle, its repetition in Article I paragraph 2, is of special significance in emphasizing the limitation on the freedom of use. It is also indicative of the fact that

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<sup>7</sup> See Article VI of the 1967 Outer Space Treaty.

<sup>8</sup> See, Adams, T.R., "The Outer Space Treaty: An Interpretation in Light of the No-Sovereignty Provision", 9 (1) Harvard International Law Journal, 1968, 140, at p. 141.

<sup>9</sup> Jenks, C.W. and Larson, A., (ed.), Sovereignty Within the Law, 1965, at p. 433: the "sovereignty of the State consists of its competence as defined and limited by international law and is not a discretionary power which overrides the law". Similarly, Sir Gerald Fitzmaurice said that "States are sovereign; but this does not imply for them an unlimited freedom of action", in "The General Principles of International Law Considered from the Standpoint of the Rule of Law", 92, Recueil des cours, 1957, at p 49.

<sup>10</sup> "International persons (States) are equal before the law when they are equally protected in the enjoyment of their rights and equally compelled to fulfil their obligations": Dickinson, E. D., The Equality of States in International Law, 1920, at p. 3.

States have always favored the dominance of international law over freedom of action; i.e. sovereignty within the law.<sup>11</sup>

Perhaps the most important rule of international law that applies to the use of outer space, including any part of it, is that States must exercise their rights in such a way as not to infringe or conflict with similar rights of other States.<sup>12</sup> In other words, the right of freedom of use of outer space by States is limited by analogous rights of other States. There is a well recognized rule of international law (i.e. rule of "respect for the rights of others") according to which the legitimate interests of other States must also be taken into consideration when a State exercises its freedom of action<sup>13</sup>. In Lachs' opinion, "There can be no doubt that the freedom of action of States in outer space or on celestial bodies is neither unlimited, absolute or unqualified, but is determined by the right and interest of other States. It can therefore be exercised only to the extent to which as indicated it does not conflict with those rights and interests..... There should therefore be no antinomy between the freedom of some and the interest of all."<sup>14</sup> Moreover, the freedom of use of outer space does not include its "misuse". Under international law, the concept of "abuse of rights" provides that States are responsible for their acts "which are not unlawful in the sense of being prohibited"<sup>15</sup> but cause injury to other States. According to Lauterpacht, "There is no legal right, however well established, which could not, in some circumstances, be refused recognition on the ground that it has been abused".<sup>16</sup> Moreover, it "is difficult to imagine a reasonable claim that any activity in space is

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<sup>11</sup> . Outer space has never been a "legal vacuum", since international law has always regulated relations between States : Lachs, M., The Law of Outer Space: An Experience in Contemporary Law-Making, 1972, pp. 12 et seq. At the time of the discussions concerning the Treaty, the French delegate reiterated his Government's views that, "there would no doubt be some difficulty in implementing the Treaty, whose provisions clearly constituted an innovation from the standpoint of traditional international law based on the sovereignty of States". (See Official Record of the General Assembly, Twenty -First Session, First Committee, Summary Records of Meetings, 20 September – 17 December 1966, UN, New York, p.429).

<sup>12</sup> . At its 1980 session, the International Law Commission has opined that "a universe of law postulated that the freedom of each of its subjects should be bounded by equal respect for the freedoms of other subjects; that States engaging in an activity which might cause injurious consequences internationally should take reasonable account of the interests and wishes of other States likely to be affected" : UN Doc. A/CN.4/334/Add.2, paras 52, 56 and 60 (cf. UN Doc. A/AC.105/C.2/SR.369, February 15, 1982, 4).

<sup>13</sup> . See the decision of the International Court of Justice in Anglo-Norwegian Fisheries, United Kingdom vs. Norway, (1951), International Court of Justice, Reports of Judgements and Advisory Opinions, p. 116 et seq.; also see Brownlie, I., Principles of Public International Law, 1973, p.431.

<sup>14</sup> . Lachs, M., The Law of Outer Space: An Experience in Contemporary Law-Making, 1972, p. 117.

<sup>15</sup> . Brownlie, I., Principles of Public International Law, 1973, p.430. See also *supra* foot note 12.

<sup>16</sup> . Cited in Brownlie, I., Principles of Public International Law, 1973, p.432.

'essentially within the domestic jurisdiction' of any state, within the meaning of Article 2, paragraph 7 of the UN Charter".<sup>17</sup> The freedom of action originating from the concept of territorial sovereignty as understood in non-space relations is also not applicable.<sup>18</sup>

An obvious conclusion drawn from the above discussion is that in the exercise of their freedoms of exploration and use of outer space, States must not act entirely at their own discretion and in pursuant to their exclusive interests; they must respect the corresponding rights and interests of other States; nor are States allowed to abuse their rights by imposing unreasonable restrictions on the use of outer space by other States; since every State is guaranteed an equal right to use outer space without discrimination of any kind.

### **Non-Appropriation of Outer Space**

The 1967 Outer Space Treaty, under Article II, specifies 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". By the time the 1967 Treaty was adopted by the Committee on the Peaceful Uses of Outer Space (COPUOS), it was well recognized that outer space cannot be subjected to appropriation by any means. This principle is a legal norm not only of conventional international law but has also become a part of customary international law (and *jus cogens*) binding upon all States.<sup>19</sup>

This principle is an essential element of the common interest principle; i.e if outer space could be appropriated to serve exclusive interests, it would not be in the common interest of mankind.<sup>20</sup> The principle of non-appropriation of outer space is linked to the principles of common interest of mankind and the freedom of exploration and use. Article I asserts that "outer space, including the Moon and other celestial

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<sup>17</sup> Jenks, C.W., Space Law, 1965, p.209.

<sup>18</sup> In fact it was perceived and realized even at the time of negotiating the 1967 Treaty that its application in non-sovereignty areas like outer space would not be without some difficulties; see the statement of the French delegate in *supra* foot note 11.

<sup>19</sup> See, generally, Csabafi, I.A., The Concept of State Jurisdiction in International Space Law, 1971, 47; Goedhuis, D., "Some Recent Trends in the Interpretation and the Implementation of the Rules of International Space Law", 19 (2), Columbia Journal of Transnational Law, 1981, p. 212, at p. 215.

<sup>20</sup> Sorros, M.S., "The commons in the sky: the radio spectrum and the geosynchronous orbit as issues in global policy", 36 (3), International Organization, 1982, p.665, at p.669. According to Christol, "the prohibition against national appropriation must be read in connection with the provision of Article I, par. 1 of the Principles [1967 Outer Space] Treaty where it is ordained that equal and non-discriminatory exploration and use shall prevail. These provisions must also be related to the major provisions of Article I, par. 2, namely, that such exploration and use are to be carried out for the benefit and in the interests of countries and all mankind. .... Exclusive rights may not exist even though the practical capabilities of some explorers, users, and exploiters may be greater than others": Christol, Carl, The Modern International Law of Outer Space, 1982, pp. 47-48.

bodies, shall be free for exploration and use by all States". It further qualifies the permissible uses of space. The use shall be "for the benefit and in the interests of all countries"...and "without discrimination of any kind, on a basis of equality". It is apparent in the light of the above that any form of appropriation of outer space is incompatible with both these principles. In this regard, Goedhuis concludes that even before the adoption of the outer Space Treaty, it "was realized that by denying the legality of such [sovereignty] claims the interests of the world community as a whole would be best served".<sup>21</sup>

The arguments in favor of the position that the 1967 Outer Space Treaty does not allow the acquisition or retention of property rights in outer space will be based on the interpretation of the wordings of Article II from three perspectives:

- (a) The interpretation of the term..."national appropriation";
  - (b) The interpretation of the term..."by claim of sovereignty"; and
  - (c) The interpretation of the term..."by means of use or occupation".
- (a) The interpretation of the term..."national appropriation"

Appropriation may be considered to denote the taking of property for one's exclusive use. It is in this sense that the term has often been interpreted in space law. Appropriation of outer space therefore is the exercise of exclusive control or exclusive use. It is further submitted that "national appropriation" includes all forms of appropriation whether national, private or otherwise. The Treaty obviously imposes international responsibility on States for national activities in space regardless of whether such activities are carried out by governmental agencies or non-governmental agencies.<sup>22</sup> The negotiating history of the 1967 Treaty clearly shows that the intention of the drafters of the Treaty had been to fully ban national appropriation.<sup>23</sup>

Normally, when a treaty applies to a State it is considered also applicable to both public and private persons belonging to that State. A large majority of legal scholars believe that the 1967 Outer Space Treaty applies to, and regulates the activities of, private entities in accordance with Article VI of the Treaty. The Article, in part, provides that:

"States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether

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<sup>21</sup> . Goedhuis, D., "Some Recent Trends in the Interpretation and the Implementation of the Rules of International Space Law", 19 Columbia Journal of Transnational Law, 1981, p. 212, at p. 214.

<sup>22</sup> . See Article VI of the 1967 Outer Space Treaty.

<sup>23</sup> . "A study of the preparatory work of the [1967 Outer Space] Treaty clearly shows that the draftsmen of the principle of non-appropriation never intended this principle to be circumvented by allowing *private* entities to appropriate areas of the Moon and other celestial bodies": Goedhuis, D., "Legal Aspects of the Utilization of Outer Space", 17 Netherlands International Law Review, 1970, p. 25, at p. 36.

such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty”.

However, a small minority of authors<sup>24</sup> argue that private entities can appropriate outer space or a part of it though their States are prohibited to do so essentially because Article VI, in their view, “mainly concerns national activities in outer space” and Article II of the 1967 Treaty prohibits only “national appropriation”.

Without going into too detailed an analysis of this assertion, one can say that the views of the minority are not legally tenable. Firstly, the negotiating history and the wording of Article VI make abundantly clear that private entities cannot do what their States are prohibited from doing. The Soviet Union while negotiating this Treaty accepted the involvement of private entities in the exploration and use of outer space only once it was assured that these entities will participate only when authorized by appropriate States which will continuously supervise their activities.<sup>25</sup> Without such an assurance, an agreement on this issue would have not been possible. Secondly, the States Parties to the Treaty are under clear obligation to ensure that space activities of the private entities are in conformity with the provisions of the 1967 Treaty.<sup>26</sup> Thirdly, by allowing private entities to appropriate outer space, or a part of it, would defeat the

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<sup>24</sup> See Gorove, S., “Interpreting Article II of the Outer Space Treaty”, 37, *Fordham Law Review*, 1969, p. 349 at p. 351; Wassenbergh, H., “Responsibility and Liability for Non-Governmental Activities in Outer Space”, in *ECSL Summer Course on Space Law and Policy : Basic Materials*, 1994, pp. 197 et seq.

<sup>25</sup> For details see, Matte, N.M., *Aerospace Law*, 1969, at p. 309.

<sup>26</sup> Under Article VI of the 1967 Treaty, “a nation which becomes a party to the treaty agrees to be responsible for space activities carried on by one of its governmental agencies as well as by any non-governmental entity. For the United States, this means that the government would accept responsibility for the activities of NASA as well as those of the Communications Satellite Corporation (COMSAT), etc. Furthermore, the government would see that such activities conform to the treaty’s provisions, and also authorize and continuously supervise the space activities of non-governmental entities. The relationship between the US Government and COMSAT is already defined in the U.S. Communications Satellite Act of 1962 (Public Law 87-624 (76 Stat. 419)) and in the President’s Executive Order of January 4, 1965 on carrying out provisions of the COMSAT Act of 1962 concerning government supervision, including international aspects and the role of the Secretary of State. .... This article is designed to ensure responsibility for space activities, inherently international in nature, at the governmental level”: Staff Report on the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies: Analysis and Background Data, 1967, pp. 27-28 : that was prepared to provide information on the legislative evaluation of the provisions of the 1967 Treaty for the Committee on Aeronautical and Space Sciences of the US Senate and to be used by the Senate during its consideration of the Treaty for the purpose of advising the US President whether or not to ratify the Treaty. See also Dembling, Paul G., “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies” in Jasantuliyana, N. and Lee, R. (eds.), Manual on Space Law, Vol. 1, 1979, p.1, at p. 17.

very purpose of Article II which contains comprehensive provisions prohibiting appropriation. Moreover, any act of a public or private entity which is contrary to Article II will also defeat the purpose of Article I paragraph 2 which lays down the most fundamental principle of space law; i.e. the freedom of outer space. Finally, State practice as expressed in the appropriate national laws of some States, like the Russian Federation, South Africa, Sweden, the United Kingdom and the United States,<sup>27</sup> contain clear provisions assuming State responsibility in ensuring that the activities of their private entities are carried out in accordance with the provisions of the applicable international treaties, including the 1967 Outer Space Treaty.

(b) The interpretation of the term... "by claim of sovereignty".

The concept of appropriation and retention of property rights are intimately tied to the sovereignty which States exercise over territory. Sovereignty is a State's right to exert exclusive authority over people, resources and institutions. It is generally exercised to its fullest extent within the boundaries of a State's territory. States also express their sovereignty outside national boundaries, but that authority is limited to certain specific functions, such as jurisdiction over ships, aircraft, and citizens abroad. A distinction therefore has to be made between the absolute territorial sovereignty which is exercised within national boundaries, and the functional aspects of sovereignty, which are exercised beyond national boundaries. In this regard, the 1967 Outer Space Treaty permits States to exercise functional sovereignty exclusively and only in its Article VIII where it requires States to "retain jurisdiction and control over... space objects on the registry... and over any personnel thereof, while in outer space or on a celestial body". It

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<sup>27</sup> . The Law of Russian Federation on Space Activity (20 August 1993) Article 4 (1) of which states that "Space activity shall be carried out in conformity with the following principles: .... international responsibility of the state for space activity under its jurisdiction". Under section 11 of the 1993 Space Act of South Africa (Act no 14917 of 23 June 1993), a license is required for "the participation by any juristic person incorporated or registered in the Republic [of South Africa], in space activities: (i) entailing obligations to the State in terms of international conventions, treaties or agreements entered into or ratified by the Government of the Republic". Furthermore, "A license shall be issued subject to such conditions as the Council may determine for that particular license, taking into account : .....(c) the international obligations and responsibilities of the Republic". The Swedish Act on Space Activities (1982:963) in its Section 6 specifies that "If the Swedish State on account of undertakings in international agreements has been liable for damage which has come about as a result of space activities carried on by persons who have carried on the space activity shall reimburse the State what has been disbursed on account of the above-mentioned undertakings, unless special reasons tell against this". The 1986 United Kingdom Act on Space Activities (1986 Ch. 38) was enacted "to confer licensing and other powers on the Secretary of State to secure compliance with the international obligations of the United Kingdom with respect to the launching and operation of space objects and the carrying on of other activities in outer space by persons connected with this country". Section 5 of the Act specifies that, a license may be granted subject to such conditions, as the Secretary of State thinks fit, and in particular, may contain conditions (e) requiring the licensee to conduct his operations in such a way as to .. (iii) avoid any breach of the United Kingdom's international obligations". The US Act to Facilitate Commercial Space Launches, and for Other Purposes of 1984, as Amended 1988 (Public Law 98.575, 98th Congress, H.R. 3942, October 30, 1984. 98 Stat. 3055), in its Section 21 (d) states that "The Secretary shall carry out this Act consistent with any obligation assumed by the United States in any treaty, convention, or agreement that may be in force between the United States and any foreign nation. In carrying out this Act, the Secretary shall consider applicable laws and requirements of any foreign nation".

follows therefore that by virtue of Article VIII the extent to which States can exercise functional sovereignty is strictly limited. This is supported by the opinion of Wilfred Jenks who postulates that "If property transactions should take place in space it would seem appropriate to regard them as governed by the law with which the transaction has the most substantial connection. If anything in the nature of real property rights at a space station on a celestial body were to be recognized, the law applicable there would presumably govern them as *les situs*. Any recognition of real property rights beyond the limits of such a station would...raise a major question of policy concerning the basis of authority to confer or recognize such rights".<sup>28</sup> There has in fact been one instance in which nations have asserted territorial claims in outer space. In an earlier reference to the Bagota Declaration equatorial States claimed territorial sovereignty over certain portions of the geostationary orbit which are located above their territories. They asserted that (a) the orbit is a physical fact arising from the nature of our planet, (b) its existence depends on gravity, and (c) it therefore should not be considered a part of outer space. On the basis of this rationale, they argued that the orbit formed an integral part of their territory that was subject to their sovereignty. This rationale was widely rejected by other States since the geostationary orbit is considered to be a part of outer space and that such territorial or property claims violated Articles I and II of the 1967 Outer Space Treaty.<sup>29</sup> This incident has strengthened the prohibition against national appropriation.

(c) The interpretation of the term... "by means of use or occupation".

Traditionally, occupation has been the principal method of perfecting territorial claims, but the degree of occupation necessary has varied. In the past, symbolic occupation, or "discovery" was sometimes sufficient. European countries established claims by planting their national flag and Russians buried medallions bearing the coat of arms. Later some nations questioned the sufficiency of symbolic occupation. Eventually it came to be regarded as an inchoate title that could only mature if reasonably prompt effective occupation followed.<sup>30</sup> During the twentieth century the concept of effective occupation has broadened and changed in emphasis---from colonization and settlement, to a more political character---the continuous and peaceful display of State authority. Two pre-requisites are necessary to establish a display of authority -- (1) the intention and will to act as sovereign, and (2) some actual exercise or display of such authority.<sup>31</sup> The degree of control which is necessary to establish a valid claim varies with the circumstances of each claim. International case law provides the following guidelines:

<sup>28</sup> See Jenks, C.W., Space Law, 1965, p. 297. See also Lachs, *infra* foot note 39.

<sup>29</sup> See Jakhu, R.S., "The Legal Status of the Geostationary Orbit", VII, Annals of Air and Space Law, 1982, pp. 333 et seq.

<sup>30</sup> Bhatt, S., Legal Controls for Outer Space, 1973, at p. 159.

<sup>31</sup> See the Judgement in the Case Concerning the Legal Status of Eastern Greenland (Denmark Vs. Norway), 1933, P.C.I.J., Series A/B No.53, at pp. 45-46.

(1) the smaller, the more inaccessible and uninhabited an area is, the less control a State must display to establish a claim;<sup>32</sup> (2) the area claimed must be a geographical unit-"a naturally rounded-off region"; and (3) competing claims may either defeat an inchoate title or geographically restrict other claims based on effective occupation.<sup>33</sup>

Taking all of the above into consideration and with specific regard to the acquisition and retention of property rights to orbits (orbital slots and associated radio frequencies), it is submitted that the nature of acquired rights to use outer space or a part of it (e.g. an orbital slot and associated radio frequencies) does not confer a right to own the same. Since the beginning of the space age, there has been only one instance where any one (e.g. equatorial countries in their Bogota Declaration) attempted to lay claims to appropriate a portion of outer space. These claims, as already discussed, have been denied by the international community since, the geostationary orbit is part of outer space and is not subject appropriation. It is also important to note that:

(i) all satellites (both in the geostationary and non-geostationary orbits) use the radio frequencies allocated to space services in the Radio Regulations adopted through international conferences of the International Telecommunication Union (ITU); this implies that member States of the ITU recognize and accept the fact that all satellites are in outer space; and

(ii) the great majority of States (nearly all States) consider the geostationary orbit to be part of outer space. The US, along with other States, has been of the opinion that "at an altitude of approximately 35,000 km. the GSO (geostationary satellite orbit) (is) clearly subject to the provisions in the 1967 Outer Space Treaty prohibiting any appropriation by claim of sovereignty and stipulating that outer space should be free for exploration and use by all States".<sup>34</sup>

It is important to keep in mind that the ITU adopts international legal rules (i.e. the Radio Regulations) which invariably subject the non-geostationary orbits to a similar legal regime that governs the geostationary orbit, which is not subject to national or private appropriation of any kind. Moreover, the use (and meaningful exploitation) of outer space, particularly for telecommunication purposes by satellites in geostationary and/or non-geostationary orbits, is impossible without the use of appropriate radio frequencies.<sup>35</sup> Any unreasonable restriction imposed by a State (or its regulatory agency

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<sup>32</sup>. See the case of Denmark Vs Norway (supra) and Clipperton Island Arbitration (Mexico Vs. France), 1931, 2 Review of International Arbitration Awards, at p. 1105.

<sup>33</sup>. See Hackworth, I.G., Digest of International Law, 1940, Vol. I, at p. 404; Brooks, E., "National Control of Natural Planetary Bodies, Preliminary Considerations", 32, Journal of Air Law and Commerce, 1966, at pp. 315 and 322.

<sup>34</sup>. UN Doc. A/AC.105/C.2/RS.377, (1982), 2.

<sup>35</sup>. It is interesting to note that radio frequencies, like outer space, have been declared to be an "international public trust" which is available for use by all countries (and not to be owned by any one). See Article 14 (3) of the Constitution of the International Telecommunication Union, Kyoto, 1994.

like the FCC) on the use of radio frequencies by any satellite system of a foreign State is undoubtedly an indirect, if not direct, way of restricting the freedom of use by that foreign State. In other words, no State can be considered to enjoy an equal right of freedom of use or exploitation of outer space if the means for such use are in certain ways controlled or restricted by other States. One must not forget that States are prohibited to restrict the use of outer space by other States irrespective of the nature of the means (including the orders or policies of any governmental body like the FCC) employed in the imposition of such restrictions. Moreover, the geostationary or non-geostationary orbits as well as associated radio frequencies, which are used to provide satellite telecommunication services, cannot be subject to claims of sovereignty, ownership or property rights.

From the beginning of the space age, the US Government has maintained the view that outer space must remain free from exclusive property rights. President Lyndon B. Johnson, in his Letter of Transmittal of 7 February 1967 submitting to the US Senate, for its advice and consent to ratification of the 1967 Outer Space Treaty by the US, recalled that:

“In November 1958, President Dwight D. Eisenhower asked me to appear before the United Nations to present the U.S. resolution [on outer space]....On that occasion, speaking for the United States, I said: ‘Today, outer space is free. It is unsacred by conflict. No nation holds a concession there. It must remain this way. We of the United States do not acknowledge that there are landlords of outer space who can presume to bargain with the nations of the Earth on the price of access to this domain.....’. I believe those words remain valid today.”<sup>36</sup>

Other States also held similar views. For example, during the negotiations of the 1967 Outer Space Treaty in the Legal Sub-committee of the COPUOS, on 4 August 1966, the representative of Belgium noted that the term ‘non-appropriation’, advanced by several delegations - apparently without contradiction by others - covered both the claims of sovereignty and “the creation of titles to property in private law”.<sup>37</sup> This view was shared by the French representative, who, speaking to the First Committee on 17 December 1967, stressed that the basic principle of the 1967 Outer Space Treaty was that there was a “prohibition of any claim to sovereignty or property rights in space”.<sup>38</sup> Various legal commentators, interpreting Article II of the Outer Space Treaty invariably reiterated the views expressed by numerous States. For example, Manfred Lachs - who

<sup>36</sup>. Treaty on Outer Space, Hearings before the Committee on Foreign Relations, United States Senate, Ninetieth Congress, First Session on Executive D, 90th Congress, First Session, March 7, 13 and April 12, 1967, U.S. Government Printing Office, Washington, at pp. 105-106. (emphasis added)

<sup>37</sup>. Cited in Christol, Carl, “Article 2 of the 1967 Principles Treaty Revisited”, IX, Annals of Air and Space Law, 1984, p. 217, at p. 236. According to Dembling and Arons, “if an individual nation cannot claim sovereignty to any particular area of outer space or of any celestial body, it cannot deny access to that area”, cited in Christol *ibid.*

<sup>38</sup>. Christol, *Ibid.* at p. 218.

was the Chairman of the Legal Sub-committee of the COPUOS at the time of negotiations and adoption of the 1967 Outer Space Treaty – examined the text of the Treaty and concluded that the prohibition of “national appropriation” in Article II included both sovereign rights and private property rights. He further asserted that “‘Appropriation’ in the wider sense is involved. States are thus barred from establishing proprietary links in regard to the new dimension”.<sup>39</sup>

### **Conclusions:**

The obvious conclusion that can be drawn from this discussion is that the legally recognized freedom of use of outer space by non-US satellite systems, is being restricted or infringed upon by the action of the FCC which imposes relocation costs on such satellite systems. The US is free to allow its satellite systems to use outer space but its freedom is not absolute or unrestricted. In the exercise of its freedom of use of outer space, the United States must not act entirely at its own discretion and must respect the rights of every other State that has been guaranteed an equal right to use outer space without discrimination of any kind. The licensing of the US satellite systems is not entirely “within the domestic jurisdiction” of the US since such action has serious adverse implications for satellite systems of other States. Therefore, the US (FCC) while licensing American satellite systems must be aware of such implications and must not cause “injury” to the satellite systems of other States. The outer space activities are legally required to “be carried out for the benefit and the interests of all countries” and not for the exclusive benefit of, nor by, a single State. Therefore, it is submitted that the imposition of relocation costs on the non-US satellite systems (a) implies the granting of or recognizing the property rights in outer space of the US licensed, terrestrial wireless or satellite, systems which are clearly prohibited by the provisions of Article II of the 1967 Outer Space Treaty, (b) is a sort of discrimination against and restriction on non-US satellite systems, which are clearly prohibited by the provisions of Article I of the 1967 Outer Space Treaty, and (c) is contrary to general international law since it constitutes an abuse of its rights by the US because it causes “injury” in the form of financial burdens on accessing outer space by satellite systems of other States. Hence, the FCC’s decision of imposing relocation costs on non-US satellite systems is contrary to or in violation of the letter and spirit of the 1967 Outer Space Treaty.

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Cited in Christol, *Ibid.*

## Resumé of Dr. Ram Jakhu

Dr. Ram Jakhu is presently an Associate Professor at the Institute of Air and Space Law, Faculty of Law, McGill University, Montreal, Canada, where he teaches several courses in space law and policy. During a period of four years, (from January 1995 to December 1998), he served International Space University (ISU) holding various titles; a Professor and a member of the Senior Resident Faculty, the first Director of the Master of Space Studies program, and the first Head of the School of Social Sciences and Management.

Before joining the ISU, Prof. Jakhu was the Assistant Director of the Institute of Air and Space Law of McGill University. At McGill University, he taught a number of subjects on Canadian and international law, including the Law of Space Applications and Canadian Law of Communications. He has guided and supervised research by over 50 individual students for their graduate diplomas, Master's and Doctorate degrees. He has also taught at other various universities and presented numerous papers at various conferences held around the world. From 1978 to 1994, he was a Senior Researcher at the Center for Research in Air and Space Law, McGill University where he authored of over 30 research reports for various governmental and private bodies. He has published a book and more than 25 articles in several reputed journals. Prof. Jakhu's research and consulting interests include law and policy of space telecommunications and other space applications, of telecommunications in general, of space debris, of material processing in space and of space business.

He is also the founder and the President of *CONSULTANTS NORTHAM* (2911141 Canada Inc.), a Montreal consulting company that was created in 1990 and specializes in space business. He has carried out several consulting assignments for various governments, organizations and private space business enterprises from around the world, including the Government of Canada, the Canadian Space Agency, the Governments of several Caribbean Countries, CSP Japan Inc. of Shimizu Corporation of Tokyo, ASTRA satellite system of Luxembourg.

In 1983, he earned his Doctor of Civil Law (Dean's Honors List) degree in Law and Policy of Space Telecommunications from McGill University. He also holds a degree of Master of Laws (LL.M.) in the field of Air and Space Law from McGill University and another LL.M. from Panjab University, Chandigarh, India in the field of Public and Private International Law.