

THE PLACE OF THE MISSILE TECHNOLOGY CONTROL REGIME (MTCR) IN THE INTERNATIONAL SPACE LAW

José Monserrat Filho *

Brazilian Society for the Advancement of Science (SBPC)

Brazilian Society of Aerospace Law (SBDA)

Av. Oswaldo Cruz, 73/701, Flamengo

Rio de Janeiro, RJ, 22250-060, Brazil

Fone: (55 21) 552-9036. Fax: (55 21) 541-5342

"L'ordre actuel se traduit par un ensemble de relations de force, au milieu desquelles il existe une disparité saisissante entre richesse et pauvreté. Il est essentiel d'entrer dans le vingt-et-unième siècle avec la conviction que le monde a besoin de solutions urgentes, car il a enregistré des progrès gigantesques, mais il laisse également subsister des besoins particulièrement rigoureux."

Manfred Lachs¹

Abstract

This paper aims to find out the legal relation between the principle of ballistic missile non-proliferation, as fixed in the MTCR, on one side, and the principles of outer space free exploration and use (free access) and non-appropriation, as set up by the 1967 Outer Space Treaty, on the other side. It is an attempt to establish the hierarchy of these two sides to determine which of them is the top one and, consequently, takes priority over the other. So it is supposed to answer the question whether the right of free access to outer space and the obligation not to appropriate outer space could be subordinated to the rule of ballistic missile non-proliferation, as it happens today in some cases. It seems as the right way not only to define and qualify the present place of the MTCR in the international space law, as well as to point out what should be done to make this place an entirely lawful one and as much effective as possible.

1. Introduction

The analysis of the MTCR international legal position is a present-day issue. It has serious doctrinal and practical implications.

The MTCR introduces a restricted interpretation to the principle of all States access to outer space, as well as to the all States obligation not to appropriate outer space by any means.² This approach reduces, inevitably, the range and the weight of the principle of exploration and use of outer space for the benefit and in the interests of all States. The principle of the space co-operation is also considerably diminished. This way, the MTCR may represent a kind of erosion of the spirit and the letter of the 1967 Outer Space Treaty³, as much as all these principles are fundamental in it.

In practice, the MTCR is organized and acts as a powerful international instance deciding which countries can have access to outer space and which can not, since it exerts rigorous control over the transfers of needed advanced rocket technology and its components.

Copyright © 1993 by José Monserrat Filho. Published by the American Institute of Aeronautics and Astronautics, Inc. with permission. Released to AIAA to publish in all forms.

*Member IISL; Master of International Law; Director of the magazine "Ciência Hoje" (Science Today), da SBPC.

However, no one can minimize the importance of preventing the proliferation of ballistic missile all over the world, to guarantee the international peace and security for all countries. So the discussion on the legality of the MTCR must lead, at the same time, to the elaboration of a universally acceptable and more effective international regulation of dual technology transfer, such as space rocket technology, which has been used for both military and civilian purposes for over four decades.

Yet this international regulation, by no means, can not be established in detriment of the transfers of high-technology products, services and know-how for peaceful space purposes, which are essential for the economic and social welfare of all nations. On the contrary, this transfer, with all the required guarantees, shall be its main concern, if all countries really recognize "the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes," as says the Outer Space Treaty preamble.

In 1991, Brazil proposed to the United Nations Disarmament Commission the idea of elaborating a set of norms for the transfer of high technology with military applications. The aim was to open the transfer of high technologies for peaceful purposes through a counter-balance of guarantees that such technologies will not divert to military uses. The proposal called the attention to the necessity of seeking a just balance between international security and science and technology development in the higher level. This question is now being discussed in the Disarmament Commission.⁴

2. What kind of agreement is the MTCR

The MTCR is a non-formalized agreement among nations possessing advanced space technology to limit the proliferation of missiles capable of delivering nuclear, chemical and biological weapons. It consists of "guidelines for sensitive missile-relevant transfers" and an annex listing technologies the transfer of which is subject to control.

The governments of the seven most industrialized countries – United States, United Kingdom, Japan, Italy, Germany, France and Canada – have decided to create the MTCR in April 1987. Using this common approach, they tried at the same time to prevent the commercial advantage or disadvantage for any of the countries involved.⁵ The development of this kind of regime is inseparable from considerations of power and interest.

Subsequently a number of countries have declared to abide by the rules established under the MTCR or generally support its objectives. Among these adherent countries are Argentina, Australia, Austria, Belgium, China, Denmark, Finland, Israel, Luxembourg, The Netherlands, New Zealand, Norway, Portugal, Russia, Spain, Sweden and Switzerland. The great majority of them, of course, are developed countries.

We may observe that the MTCR was not created in the wide

and opened United Nations frameworks, as the Disarmament Commission or the Committee on the Peaceful Uses of Outer Space, even though the issue of rocket technology non-proliferation relates to both and concerns to all nations.

To some authors, the MTCR is not a treaty but a common policy.⁶ Others consider it as a "gentleman's agreement."⁷ Anyway the informal character of this agreement does not correspond to the international importance of the ballistic missile non-proliferation question. It is not a question of interest only to a few countries. It is a relevant international peace and a security question of interest to all countries.

In spite of all the responsibility it carries, the MTCR has not clearly defined rights and obligations, operational transparency, adequate verification, rules of decision-making and judgment procedures, and obligation to give public explanation of its affairs. That is why it seems to move in the shadow of secret diplomacy⁸, according to "the law of the strongest."

Russia, for instance, has officially joined the MTCR last September, under a pact signed with the US Administration, in very particular circumstances. This arrangement has codified the settlement US and Russia reached last July, under American pressure.⁹ It allows Russia to sell cryogenic stages to India, but stipulates that controls must be applied on the amount of technology transferred along with the hardware. The controls are designated to prevent India from gaining the capability to produce the stage.¹⁰ As compensation, Russia can now enter the American space market and business. Till recently Russia, along with India, claimed that the United States imposed sanctions to prevent them from competing in the commercial space-launch business.¹¹

The MTCR seeks to impose controls over the transfer of rocket systems capable of delivering a payload of at least 500 kilograms over a distance of at least 300 kilometers, as well as missile components and related items used to produce missiles. Therefore, the MTCR is not directed towards specific countries, but is based on the control of the transfer of specific rocketry. As such, it has been argued to be the most stringent barrier to the acquiring of outer space capabilities by emerging outer-space-competent states.¹²

A weighty research paper from the Unidir/United Nations reports that efforts by MTCR original members to curb the development of ballistic missiles has generally affected three specific areas of outer space programs: raw materials (liquid fuel), components and their technologies (stage separation and electronic components), and equipments and their technologies (telemetry, engines, navigation systems – inertial platform and guidance equipment). Beyond these areas, restrictions have also affected the flow of services and the development of co-operative ventures. Most, if not all, of the MTCR members have applied these restrictions, but it is believed that those applied by the United States have been the most stringent of all. Their effects are seen as being quite significant in raising a number of obstacles to the development of space vehicles.¹³

The MTCR guidelines say they "are not designed to impede national space programs or international cooperation in such programs as long as such programs could not contribute to delivery systems for weapons of mass destruction." Yet they do not force the member countries to make distinction between civilian and military technology transfer. As well, they do not set up the commitment of both suppliers and recipients to cooperate to the maximum extent possible to ensure that transfers for exclusively peaceful purposes will not be diverted to non-peaceful uses.

Besides, the assessment as to the military or peaceful nature of national space programs of non-MTCR adherents depends upon the exclusive decision of a few powers, with very specific strategic, industrial and commercial interests.

For instance, in 1988, United States Administration officials

have reportedly not taken up the proposition made by a Brazilian delegation in Washington, guaranteeing that the VLS (Satellite Launch Vehicle) program was devoted exclusively to peaceful missions and that the US could follow all of its stages, including, its rescue at the sea.¹⁴

The MTCR has not permanent structure. It comprises only unilateral sanctions. There is no international instance of appeal.

The guidelines allow the transfer of listed equipment if a binding government-to-government agreement states that the technology is not to be used for military missiles. However, there is no example of this. Despite "a strong presumption to deny" sales of "Category 1" items like rocket engines, some exceptions for space related ventures were clearly anticipated when the MTCR was devised.¹⁵

It is laudable that the MTCR's declared aim is to discourage the proliferation of technology for the production of ballistic missiles that can deliver mass destruction weapons. Yet, the configuration and the working process of this intergovernmental agreement are quite questionable, since they seem to be arbitrary, archaic and unfair, thus discriminating against free and equitable access to outer space.

3. Is the MTCR a source of ISL?

The MTCR appears as an in force source of the international space law, since it is used to regulate some space activities of States. The object of regulation of the MTCR is also an object of regulation of the international space law. The relations of States regulated by this law include those ones that arise in Earth-based space activities, as for instance in all the ground actions concerned with the launching of any object into outer space. The international space law "is formed by a group of rules that regulate activities with outer space character wherever they are developed."¹⁶

The recognition of the MTCR as an international space law instrument does not yet qualify it as a legitimate one and gives it a lawful place in the modern *Corpus Iuris Spatialis*, "the law which by own nature is proper and common to all peoples."¹⁷

4. Is there a place in the ISL for the MTCR?

The MTCR would have a lawful place in the International Space Law only if its proposals and practice were according to the principles of the 1967 Outer Space Treaty.¹⁸

If we consider these principles as peremptory norms (*Jus Cogens*) in the sense of Article 53 of the Vienna Convention on the Law of Treaties of 1969, we could say that the MTCR would be void. It conflicts with norms accepted and recognized by the international community of States as a whole, as norms from which no derogation is permitted and which can be modified only by a subsequent norm having the same character.¹⁹

As it is difficult to harmonize the MTCR with the spirit and the letter of the 1967 Outer Space Treaty, we can assert that there is not legal place in International Space Law for the MTCR in its present configuration.

The principles of free exploration and use of outer space (free access), non-appropriation of outer space and common benefit are the main ones that might be used as criteria to define the legal conditions of the MTCR.

5. Is the MTCR consistent with the principle of free access to outer space?

The free exploration and use of outer space (free access) has widely been recognized just in the beginning of the space activities, as indicates the UNGA Resolution 1721, approved in 1961. The 1967 Outer Space Treaty codified this principle on its Article I, 2, that says:

"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 according to international law..."

"The main usefulness of this idea," Charles Chaumont has taught still in 1960, "is to safeguard (retaking the words of the Argentinian Delegate at United Nations, said in 15th November 1958) 'the absolute equality of States relating to the right to use outer space eventually,' so that this eventuality does not appear later as a grace given by the first States carrying out space activities to the others."²⁰

Thus, the right of access to outer space can not be a grace given by the first space powers, as it derives from the MTCR.

Manfred Lachs pointed out that "affirming the freedom of States action (according to Article I, 2 of Outer Space Treaty), the law specifies the conditions of its use with three elements of its definition; a) the prohibition of discrimination; b) the recognition of equality of all States; c) the requirement that the space activities shall be carried out in accordance with international law. It can be asserted that these three elements complete one another: equality does not allow discrimination, as well as the international law that also requires equality." On the contrary, the MTCR sets up a system of discrimination without the consent of the international community and, of course, does not recognize the equality of all States.

At the same time, Lach took into account that presently only some States carry out exploration of outer space. The law can not change this fact, he noted, but "it can refuse indeed to approve the situations that could prevent all States to have equal rights and benefits in the future."²¹ The MTCR clearly seems to be one of these situations.

To Pierre-Marie Martin, the principle of free exploration and use of outer space "signifies that all States have the right to launch objects into outer space and, correlatively, that no States can prevent other State to carry out this launch. This rule, by the way, derives naturally from the norm well known in international law establishing the sovereign equality of States, that does not pay attention -- which is a good position -- to the inequalities in the field of industrial development."²²

With regard to this question, Horst Fischer correctly wrote: "The therein embodied non-discrimination clause grants, as Wolfrum has pointed out, a substantive right to those countries that are not able to participate directly in the exploration and use of outer space. In complying with this right, the space powers are not permitted to monopolize space for national interests."²³

The real and increasing inequalities among nations, therefore, can not be used by any State to monopolize space, as well as to ignore the sovereign right of all States to launch objects into outer space through its own means, excepting if a new universal international treaty establishes otherwise. Obviously, the MTCR is not this kind of treaty.

6. Is the MTCR consistent with the principle of non-appropriation of outer space?

The principle of non-appropriation of outer space also emerged in the first years of the space era. It equally appeared in the 1961 UNGA Resolution 1721 and has been codified in the Outer Space Treaty, as its Article I says: "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."

According to Manfred Lachs, this general principle means that "to any State it is permitted an exclusive status in the outer space, because it would prevent other States to exert equal rights."²⁴ Thus, as Martin emphasizes, "the principle of non-appropriation can only be understood in conjunction with the principle of free exploration and use."

Martin also stresses: "The classic expression 'by any other

means' acts as a tight locking formula (verrouillage). In a general sense, it is proposed to exclude any possibility of appropriation either by separate State or by a group of States, as well as by individuals or private organizations."²⁵

To Armand D. Roth, all acts or all activities of one State having the effect of hindering substantially the use of outer space by other State or making impossible or unfeasible the space activities carried out by other State are constitutive of an appropriation and can be, *prima facie*, qualified as undue appropriation.²⁶

So, we may conclude that the MTCR conflicts with the principle of non-appropriation since it permits an exclusive status for some technologically advanced States, hindering the use of outer space by other States. This way, it can be seen as a kind of appropriation. In that case, an appropriation by means of technological monopolization, which is rather more effective, in our time, than many of other means.

7. How to reconcile the MTCR with the ISL

The most effective solution to this issue would be the creation of a genuinely impartial universal legal mechanism that should be as open and transparent as the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), but without any discriminating clauses, or the 1993 Convention for the Prohibition of Chemical Weapons.

This way, it would be possible to legitimate a rigorous control over the missile technology for the military purposes. At the same time, it would create reliable conditions to promote wider international cooperation for peaceful purposes, allowing all interested countries to develop indigenous capability in space science and technology and their applications.

W. Thomas Wander and Eric H. Arnett are right when they warn that "for restraints to be perceived as legitimate and thus effective, they must be the result of difficult but more comprehensive deliberations that result in restraints that the major powers observe along with the lesser powers."²⁷ It secures their widespread acceptability and the adherence of the greatest possible number of States.

It is important to underline that "the lack of a multilateral agreement on the interpretation and enforcement of the MTCR has weakened its effectiveness. Unilateral sanctions have little practical effect. An end-use regime -- one that calls for a demonstration of how the transferred technology would be used -- might be more effective. Such a plan could help to prevent missile proliferation without discouraging civilian space launch programs."²⁸

To this end, it is necessary to work harder than ever to forge a wide consensus that might lead to the establishment of more democratic international institutions for building confidence and security, including of intelligence, reciprocal visits to defense plants and space launch facilities.²⁹

In this new environment, certainly there will be no place to arbitrary or discriminatory conditions applied to any knowledge and applications destined for the peaceful uses and explorations of outer space, as negotiated international guidelines facilitate the objective settling of prerequisites for equipment and technological transfer.³⁰

To reconcile the MTCR with the international space law, therefore, it is indispensable to eliminate all its characteristics providing a non-negligible ground to accuse the presence of a "technological blockage," a "technological apartheid," or a "technological neocolonialism."³¹

References

- (1) Lachs, Manfred, *Le Droit International à l'aube du XXI^e siècle*, *Revue Générale de Droit International Public*, Juillet-Septembre 1992, n. 3, Paris: Editions A. Pedone, p. 547.

(2) See Michael Potter, *Gun Launch to Space: International Policy and Legal Consideration* (IISL-91-079), 33rd International Colloquium on the Law of Outer Space, 42nd Congress of The International Astronautical Federation, October 5-11, 1991/Montreal, Canada ("Should developing countries which have impressive space programs such as China, Pakistan, Brazil, India and others be coerced into not building space gun technology because of developed countries concerns about potential military capabilities in these regions? On the face of it, developing countries would be able to make a case against such discriminatory access to outer space by referring to Article I of the Outer Space Treaty... Along the same lines it is possible to envision developing countries making the argument that the Missile Technology Control Regime (MTCR) of 1987, by prohibiting the transfer of certain propulsion technologies, also discriminates against free and equitable access to outer space.")

(3) *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*. Done at Washington, London and Moscow. Entered into force for the United States, Oct. 10, 1967. *Basic Documents in International Law and World Order*, Burns H. Weston, Richard A. Falk, Antony A. D'Amato, St. Paul, Minn, West Publishing Co., 1980, pp. 336-338.

(4) Viegas Filho, José, *Não-proliferação e tecnologias sensíveis, Política Externa*, vol. 1, n°4, março-abril-maio de 1993, São Paulo, Brasil, pp. 136-145.

(5) Schwetje, F. Kenneth, *They shall beat their swords into plowshares* (in accordance with all relevant arms control agreements). A paper presented at the 40th Anniversary Colloquium McGill University, Institute of Air and Space Law.

(6) Schwetje, F. Kenneth, *ibid*.

(7) Bourelly, M., Courteix, S., Cristelli, Ph., Lafferranderie, G., Rebillard, Y., Ruzie, D., Saint-Lager, O. de, *Faut-il créer une organisation mondiale de l'espace?*, La Documentation française, Paris, 1992, p. 104.

(8) *Ibid*, 104.

(9) *Nature* ("Moscow scraps Indian rocket deal under US pressure"), 29 July 1993, Volume 364, p. 371.

(10) *Aviation Week & Space Technology*, July 26, p. 27, and September 6, p. 22, 1993.

(11) Revelle, Daniel, *U.S. muscle misses mark*, *The Bulletin of Atomic Scientists*, November 1992, Volume 48, Number 9, p. 10.

(12) Alves, Piricles Gasparini, *Access to Outer Space Technologies: Implications for International Security*, Research Paper n: 15, UNIDIR, United Nations, New York, 1992, p. 112.

(13) Alves, Piricles Gasparini, *ibid*, p. 111.

(14) Monserrat Filho, José, *Foguetes Proibidos* (Prohibited rockets), *O Globo* (Rio de Janeiro newspaper), 24, June 1992, p. 6.

(15) Revelle, Daniel, *ibid*, p. 11

(16) Peyrefitte, Léopold, *Droit de l'espace*, Paris: Editions Dalloz, 1993, p. 88. See also Piradov, A. S., *International Space Law*, Moscow, USSR: Progress Publishers, 1976, pp. 14-15 ("The 1967 Space Treaty defines the status of outer space (Articles I and II) and at the same time sets out the rights and obligations of states not only in outer space proper, but in all the other media as well, if their activities there have a bearing upon the exploration and use of space. If the rules and principles of international space law covered only activities in outer space proper, its provisions governing legal relations on the ground would have to be artificially removed from space law and included in the international air law, the maritime law, etc. This could also lead to the erroneous exclusion of outer space from the sphere of operation of international law in general, which would clearly be at variance with the intentions of the authors of the Treaty."); see also Zhukov, Gennady, and Kolosov, Yuri, *International Space Law*, New York: Praeger Publishers, 1984, p. 8 ("...the relation arising between states in connection with their activities in exploring and using outer space, but extending beyond its boundaries, must likewise be regulated in terms of the character of space activities irrespective of the place where they are conducted."); see also Konstantinov, Emil, *Space*

Law as a branch of International law, *Proceedings of the 35th Colloquium on the Law of Outer Space*, 1992, p. 382 ("The specific objects of the regulation of space law are those relations between the subjects of international law that relate to the realization of space activities, i. e. the exploration and use of outer space.").

(17) Cocca, Aldo Armandó, *A Way to Complement, Enforce and Improve the Space Treaty and related International Instruments of Space Law*, *Proceedings of the 35th Colloquium on the Law of Outer Space*, 1992, p. 36.

(18) *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*. Done at Washington, London and Moscow. Entered into force for the United States, Oct. 10, 1967. *Basic Documents in International Law and World Order*, Burns H. Weston, Richard A. Falk, Antony A. D'Amato, St. Paul, Minn, West Publishing Co., 1980, pp. 336-338.

(19) *Basic Documents in International Law and World Order*, Burns H. Weston, Richard A. Falk, Antony A. D'Amato, St. Paul, Minn, West Publishing Co., 1980, p. 69. About the peremptory character of the main principles of 1967 Outer Space Treaty, see also Konstantinov, Emil, *Space Law as a branch of International law*, *Proceedings of the 35th Colloquium on the Law of Outer Space*, 1992.

(20) Chaumont, Charles, *Le droit de l'espace, Que sais-je?*, Paris: Presses Universitaires de France, 1960, p. 58.

(21) Lachs, Manfred, *El derecho del espacio ultraterrestre*, Madrid, España: Fondo de Cultura Económica, 1977, pp. 65, 66. See also Zhukov, Gennady, and Kolosov, Yuri, *International Space Law*, New York: Praeger Publishers, 1984, pp. 42, 44 ("The freedom to explore and use space and celestial body implies, first and foremost, that every state has the right to launch objects into space. No state has the right to prevent another state from engaging in the exploration and use of outer space and celestial bodies for the benefit and in the interests of all countries."; "The freedom to explore and use outer space rests on the assumption that states must not place any obstacles or impediments in one another's way in conducting their activities.").

(22) Martin, Pierre-Marie, *Le droit de l'espace, Que sais-je?*, Paris: Presses Universitaires de France, 1991, p. 30.

(23) Fischer, Horst, *Basic Principles of International Space Law and Civilian Use of Outer Space*, in *Outer Space - A Source of Conflict or Co-operation?*, Edited by Bhupendra Jasani, United Nations University Press, 1991, p. 248; Wolfrum, R., *Die Internationalisierung staatsfreier Räume* (Springer Verlag, Heidelberg, 1985), p. 289.

(24) Lachs, Manfred, *El derecho del espacio ultraterrestre*, Madrid, España: Fondo de Cultura Económica, 1977, p. 64.

(25) Martin, Pierre-Marie, *ibid*, pp. 34, 35.

(26) Roth, Armand D., *La prohibition de l'appropriation et les régimes d'accès aux espaces extra-terrestres*, Paris: Presses Universitaires de France, 1992, pp. 66, 75.

(27) Wander, W. Thomas, and Arnett, Eric H., *The Proliferation of Advanced Weaponry: Technology, Motivations, and Responses*, Washington, USA: American Association for the Advancement of Science, 1992, p. 90.

(28) Revelle, Daniel, *ibid*, p. 44.

(29) Nolan, Janne E. and Wheelon, Albert D., *Third World Ballistic Missiles*, *Scientific American*, volume 263, number 2, August 1990, p. 22.

(30) See Article IV, '3, of the Principles regarding international cooperation in the exploration and utilization of outer space for peaceful (A/AC.105/C.2/L.182 of 9 April 1991), proposed by nine developing countries (Argentina, Brazil, Chile, Mexico, Nigeria, Pakistan, the Philippines, Uruguay and Venezuela) to the Legal Subcommittee of UN Committee on the Peaceful Uses of Outer Space (Copus).

(31) Bourelly, M., Courteix, S., Cristelli, Ph., Lafferranderie, G., Rebillard, Y., Ruzie, D., Saint-Lager, O. de, *ibid*, pp. 105, 108.