



Institute of Air and Space Law  
Faculty of Law, McGill University  
3661, rue Peel, Montréal,  
Québec, Canada, H3A 1X1

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**POLICY AND LEGISLATIVE OPTIONS FOR  
PARLIAMENTARIANS REGARDING POSSIBLE  
DEPLOYMENT OF FURTHER MILITARY  
CAPABILITIES IN OUTER SPACE**

PREPARED

BY

INSTITUTE OF AIR AND SPACE LAW,  
FACULTY OF LAW, MCGILL UNIVERSITY,  
MONTREAL, CANADA

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## Executive Summary

In less than 50 years, outer space has become indispensable for scientific, commercial, and military uses, not only for technologically advanced nations, but for an increasing number of less developed States as well. The military uses of outer space have been recognized and exploited since the beginning of the space era. Although States have refrained so far from placing destructive weapons in space or intentionally destroying space assets of other States, there is no doubt that in the recent years the outer space is used more and more for military purposes. Activities in outer space, both military and non-military, are currently regulated by legal provisions adopted at the international and national levels since the early 1960s. The increased uses of outer space for military uses and the prospects of placing and using weapons in outer space raise the question of whether the existing international legal and regulatory framework is sufficient to address these developments in the uses of outer space. In this context, there is a need to identify actions to be taken by the international community as a whole and/or by its individual members to adequately protect States' interests in outer space as well as ensure that the space will continue to be used for peaceful purposes and for the benefit of all humankind. This paper describes six main options that may be considered by national legislators when designing national and international laws and policies regarding peaceful and military uses of outer space.

1) The first option is to **maintain the legal *status-quo***, i.e. to not change the current legal regime regulating activities in outer space, based on the argument that the international provisions already adopted and ratified by most of the space active States are sufficient to adequately protect everyone's interests in outer space and ensure that the uses of outer space remain "peaceful". Several treaties and agreements dealing expressly with outer space, complemented by other important international treaties and regional or bilateral arms control agreements, provide a framework of rights and obligations regarding legitimate uses of outer space and impose a series of prohibitions on some military activities in space. The proponents of maintaining the *status quo*, led by the United States, are of the opinion that this legal framework proved its comprehensiveness and efficiency given the mere fact that, to date, there are no weapons placed in outer space, despite some tensed moments in the history of the rivalry between the two main space powers, the United States and the former Soviet Union. This option would require no further action from the national legislators.

2) The second option is to **strengthen the existing international and national frameworks** based on the argument that the applicability of the current legal regime can and must be expanded to more States and the effectiveness of this regime's implementation must be improved by taking full advantage of consultancy mechanisms, transparency requirements, better means of verification of compliance, and setting alternative dispute resolution authorities. The national legislators from States that have not ratified yet all the five space law treaties (i.e., the Outer Space Treaty, the Rescue Agreement, the Liability Convention, the Registration Convention, and the Moon Agreement) should take the necessary initiatives in their respective countries in order to ratify or adhere to these treaties. In addition, national legislators should promote the ratification or adherence to other international agreements dealing with conflict and war prevention that have applicability in regulating the peaceful uses of outer space.

3) The third option is to **join a multilateral effort to expand the current international legal regime**. Based on an argument that the current legal regime presents loopholes that may eventually lead to a weaponization of outer space, some promote the idea of expanding the existing

international legal framework applicable to the peaceful uses of outer space either by adopting a multilateral agreement banning all space-based weapons or only a specific type of space weapons, or by defining so-called “rules of the road” which would set certain guidelines for State behavior aimed to prevent incidents and dangerous military activities in outer space. In addition, given the crucial importance of designing and implementing means of effective verification of compliance with the treaties and agreements in place, it is recommended that States agree upon a set of confidence building measures which should include improved transparency of space operations and means to monitor the compliance with treaty provisions as well as arms control agreements. National legislators are encouraged to be open to innovative approaches to multilateral negotiations such as the so-called Ottawa Process which was used in the successful negotiation of the International Convention Banning the Use of Landmines. The key element of an Ottawa-type negotiation process is the partnership created between governments, international organizations and non-governmental organizations (NGOs) and the openness to ideas coming from all the stake-holders in outer space. Such process and partnership may prove very efficient in the field of outer space law making negotiation given the controversial nature of the issues related to military uses of outer space.

4) The fourth option is to **undertake regional or bilateral initiatives to expand the international legal regime** as an alternative mechanism to the multilateral approach. The effort to strengthen the existing legal regime by addressing the perceived weaknesses in regulating military uses of outer space may be carried out at the regional level or even on a bilateral basis. Several initiatives leading to multilateral treaties started with negotiations among a limited number of countries and only then the negotiation of the treaty was brought within the framework of the United Nations. In addition, States may approach other States on a bilateral basis to negotiate space security issues. National legislators can urge their governments to initiate such regional or bilateral negotiations of aspects related to military activities in outer space depending on the type of issues and the perceived similar position on these issues of other States.

5) The fifth policy option is to **adopt unilateral declarations** by which States vouch to, for example, not be the first to test, deploy or station space weapons, to accept certain current lawful military uses of space or to reaffirm their commitment to the peaceful uses of outer space. National legislators can initiate in their respective parliaments the adoption of such unilateral declarations which reflect their State’s views regarding military uses of outer space.

6) The sixth option is to **adopt national legislation and policies** addressing issues relevant to space security and military uses of outer space. The role of national legislators is crucial in promoting and implementing such policy option either by initiating draft legislation or by urging their government to adopt pertinent policies regarding legitimate national activities in outer space.

These six options provide possible legal and policy avenues for national legislators in response to current developments characterized by increasing military uses of outer space. If the need for modernizing the current regime is felt, a wide variety of measures would be possible, ranging from the relatively modest initiatives consisting of adopting a code of conduct or establishing launch notification agreements to far reaching treaties banning space-based weapons. These options are not mutually exclusive and are not meant to exclude other possible avenues available for national legislators.

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## Option 1: Maintaining the *Status Quo*

The option that would require the least effort would be to do nothing to change the current legal regime. The proponents of this option, led by the United States, argue that the existing outer space regime is sufficient to adequately protect the interests in outer space of all States and ensure that the uses of outer space are limited to those that are "peaceful."<sup>1</sup> Several multilateral treaties regulating outer space activities have provisions that address certain issues related to space weaponization and militarization (see table below). This international space regime currently governing outer space activities consists of a set of UN multilateral space treaties, including the Outer Space Treaty,<sup>2</sup> whose provisions have been further elaborated in four separate agreements.<sup>3</sup> These space law provisions are supplemented by several other important law-making treaties that are applicable to outer space.<sup>4</sup> In addition, a number of bilateral and multilateral space weapons control agreements, some of which will be presented when discussing policy option 4 below, complete the current legal regime applicable to issues of space militarization.

Some argue that this legal regime adequately provides for the lawful uses of outer space.<sup>5</sup> The fact that these treaties have so far allowed for and ensured the use of outer space for peaceful purposes and did not lead to the deployment of weapons in outer space is seen as a proof that the existing legal system is sufficient as it is. In addition, it is argued that augmenting the treaties in place would also be unrealistic given the difficulty in reaching the required consensus in negotiations carried on within the Conference on Disarmament on a multilateral agreement to prevent an arms race in outer space.

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<sup>1</sup> E. Javits, "A US Perspective on Space" in *Future Security in Space: Commercial, Military and Arms Control Trade-Offs*, James Clay Moltz, ed., Occasional Paper No. 10, Joint Publication of the Center for Nonproliferation Studies and the Mountbatten Centre for International Studies, 2002, at 51-53.

<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 (hereinafter the Outer Space Treaty); opened for signature on 27 January 1967, entered into force on 10 October 1967.

<sup>3</sup> The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the "Rescue Agreement", adopted by the General Assembly in its Resolution 2345 (XXII)), opened for signature on 22 April 1968, entered into force on 3 December 1968;

The Convention on International Liability for Damage Caused by Space Objects (the "Liability Convention", adopted by the General Assembly in its Resolution 2777 (XXVI)), opened for signature on 29 March 1972, entered into force on 1 September 1972;

The Convention on Registration of Objects Launched into Outer Space (the "Registration Convention", adopted by the General Assembly in its Resolution 3235 (XXIX)), opened for signature on 14 January 1975, entered into force on 15 September 1976;

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the "Moon Agreement", adopted by the General Assembly in its Resolution 34/68), opened for signature on 18 December 1979, entered into force on 11 July 1984.

<sup>4</sup> The Charter of the United Nations, 26 June 1945; Constitution and Convention of the International Telecommunication Union with Annex, 1994 (as amended in Marrakesh in 2004) and ITU Radio Regulations, Edition of 2004; Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, 5 August 1963; International Convention Concerning the Use of Broadcasting in the Cause of Peace, 23 September 1936; etc.

<sup>5</sup> E. Javits, "A US Perspective on Space" in *Future Security in Space: Commercial, Military and Arms Control Trade-Offs*, James Clay Moltz, ed., Occasional Paper No. 10, Joint Publication of the Center for Nonproliferation Studies and the Mountbatten Centre for International Studies, 2002, at 51-53.

*POLICY AND LEGISLATIVE OPTIONS FOR PARLIAMENTARIANS REGARDING POSSIBLE  
DEPLOYMENT OF FURTHER MILITARY CAPABILITIES IN OUTER SPACE*

<b>Military Activities in Outer Space Prohibited under the Current International Legal Regime</b>	
<b>Type of Activity</b>	<b>Legal Source of Prohibition</b>
Placing nuclear weapons in orbit around the Earth or on celestial bodies or anywhere else in outer space	Art. IV of the Outer Space Treaty and Art. III of the Moon Agreement.
Placing weapons of mass destruction (WMD, understood to include nuclear, radiological, bacteriological and chemical weapons) in orbit around the Earth, on celestial bodies or anywhere else in outer space	Art. IV of the Outer Space Treaty
The establishment of military bases and installations, the testing of any kind of weapons and the conduct of military maneuvers on the Moon and other celestial bodies	Art. IV, para. 2 of the Outer Space Treaty and Art. III of the Moon Agreement
Carrying out any nuclear weapon explosions, or any other nuclear explosion, anywhere in outer space	Art. I.1(a) of the Limited Test Ban Treaty
Military or hostile uses of environmental modification techniques that could produce widespread adverse effect on the human environment, which includes both the Earth's atmosphere and the surrounding outer space	Arts. I and II of the 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Techniques.
Any hostile act, committed by a device designed to operate in outer space, that causes damage to the space assets of another State	Art. 2(4) of the United Nations Charter, Arts. 3 and 4 of the UN General Assembly Resolution 3314 (XXIV) of 4 December 1974, on the Definition of Aggression.
Any threat or use of force or any other hostile act or threat of hostile act on the moon; the use of the moon to commit any such act or to engage in any such threat in relation to the earth, the moon, spacecraft, the personnel of spacecraft or man-made space objects.	Art. III (2) of the Moon Agreement
Any intentional physical interference with space assets of another State without that State's authorization	Arts. III, VI, VIII, and IX of the Outer Space Treaty and principles of general international law.
Any electronic interference with civilian satellites	Arts. 38, 45 and 48 of the ITU Constitution and Arts. 4, 15, and 22 of the ITU Radio Regulations.

However, the view that the existing legal regime is sufficient is not shared by all. Some argue that the current international system presents loopholes resulting for example from the lack of an express prohibition of such space activities such as the development, testing and deployment of anti-satellite weapons and the development, testing and deployment of space-based non-nuclear missile defense systems and their components, such as the ones envisioned in US missile defense plans.<sup>6</sup> Such loopholes, some argue, will allow a gradual weaponization of outer space and may eventually lead to an arms race in outer space.

<sup>6</sup> L. Skotnikov, Permanent Representative of the Russian Federation, Statement at the Plenary Meeting of the Conference on Disarmament, "Prevention of an Arms Race in Outer Space" Geneva (26 August 2004).

**Suggested Action for National Legislators in Implementing this Policy Option:** No specific action is required.

## **Option 2: Strengthening of Existing International and National Frameworks**

Existing international space law could be better used to advance the peaceful uses of outer space. As mentioned when discussing Option 1, the current international legal regime governing outer space activities consists mainly of the Outer Space Treaty,<sup>7</sup> the Rescue Agreement, the Liability Convention, the Registration Convention, and the Moon Agreement. The Outer Space Treaty of 1967 has been ratified and/or signed by 125 States and is universally considered to be the constitution of outer space, thereby forming the foundation of international legal framework governing all outer space activities. The other four space law treaties (i.e., the Rescue Agreement of 1968, the Liability Convention of 1972, the Registration Convention of 1975 and the Moon Agreement of 1979) do not enjoy the same level of support.<sup>8</sup>

### **(I) Wider Ratification of Space Treaties**

The first and most important step for strengthening existing international space law framework should be that the States that have not ratified space treaties should do so as soon as possible. The 1999 UN Third Conference on Outer Space (UNISPACE III) and the Committee on the Peaceful Uses of Outer Space (COPUOS) have stressed the need for a wider acceptance of these treaties. The Conference expressed its concern that “many States have not yet become parties to the [UN] outer space treaties” and in order to rectify this “less than optimal” situation, the Conference recommended immediate actions to be taken by the UN.<sup>9</sup> In 2004, pursuant to this recommendation, the Legal Sub-Committee of the COPUOS and the UN Office of Outer Space Affairs identified a list of potential benefits resulting from the ratification of the UN treaties on outer space, which provide, *inter alia*, that : (a) the exploration and use of outer space shall be carried out in the interests of all mankind on the basis of equality and in accordance with international law, including the Charter of the United Nations; (b) such activities must be pursued in the interest of maintaining international peace and security and promoting international cooperation and understanding; and (c) the States shall not place in orbit around the Earth any objects carrying nuclear weapons or any other kind of weapon of mass destruction, and not install such weapons on celestial bodies or station such weapons in outer space in any other manner; and (d) the Moon and other celestial bodies shall be used by all States exclusively for peaceful purposes.<sup>10</sup>

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<sup>7</sup> *Supra* note 2; OST has 98 ratifications and 27 signatures (as of 1 January 2004).

<sup>8</sup> The Rescue Agreement has 88 ratifications, 25 signatures, and 1 acceptance of rights and obligations (as of 1 January 2004); the Liability Convention has 82 ratifications, 25 signatures, and 2 acceptances of rights and obligations (as of 1 January 2004); the Registration Convention has 45 ratifications, 4 signatures, and 2 acceptances of rights and obligations (as of 1 January 2004); and the Moon Agreement has 10 ratifications and 5 signatures (as of 1 January 2004).

<sup>9</sup> Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 19-30 July 1999, UN Document no. A/Conf.184/6, para 372.

<sup>10</sup> Report of the Legal Subcommittee on the work of its forty-third session, held in Vienna from 29 March to 8 April 2004, UN General Assembly Committee on the Peaceful Uses of Outer Space, United Nations Document no. A/AC.105/826, 16 April 2004, 29-30.

Therefore, in order to maintain and strengthen the normative authority of the current international legal regime, irrespective of some loopholes, it is imperative that all space law treaties are ratified/adhered to by all States. The following is a brief description of some relevant provisions in the existing treaties and of how they could be used to strengthen the international regime governing outer space activities:

(a) Using Available Consultation Mechanisms

Article IX of the 1967 Outer Space Treaty contains a consultation mechanism. This Article, in part, provides that the “State Party to the Treaty which has reason to believe that an activity or experiment planned by another State Party in outer space..... would cause potentially harmful interference with activities in the peaceful exploration and use of outer space, ... may request consultation concerning the activity or experiment.” Unfortunately, this mechanism has never been used by any State. It is believed that by exercising the right to seek explanation or consultation, a State or a group of States “could help clarify potentially ambiguous or uncertain activities” of other States.<sup>11</sup> For example, such mechanism could be invoked in reaction to the raising concerns<sup>12</sup> triggered by the US plans to launch in 2006 the NFIRE (Near Field Infrared Experiment), an experimental satellite designed to distinguish between a ballistic missile’s fiery plume and the rocket itself.<sup>13</sup>

(b) Increasing Transparency

The 1975 Registration Convention could be used for increasing transparency if States Parties to this Treaty start providing more precise and timely information about their launch activities. Under Article IV (1) of the Convention, each State Party is required to furnish to the Secretary General of the United Nations the information concerning each space object carried on its registry, particularly basic orbital parameters and general function of the space object. However, the permissive nature of this Article enables nations to give a minimum of information on the function of that space object. Several States have advocated amending the Convention by asking for more detailed information than is currently being given. A simpler way of increasing transparency of space objects would be to have States complying with the Registration Convention in more timely and detailed fashion.”<sup>14</sup>

(II) Wider Ratification of Other Agreements with Applicability to the Peaceful Uses of Outer Space

Other international agreements with applicability to outer space could also be considered by States for the strengthening of the current legal regime, e.g., the 1936 International Convention Concerning the Use of Broadcasting in the Cause of Peace.<sup>15</sup> Under this Convention, the Contracting States have undertaken to “prohibit and, if occasion arises, to stop without delay the

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<sup>11</sup> L. Stojak, “The Role of the United Nations in Verification: An Outer Space Case Study”, in Nicolas M. Matte, (ed.), *Arms Control and Disarmament in Outer Space: Towards Open Skies*, CRASL, 1989, Volume III, 185, at 193.

<sup>12</sup> Congresswoman Loretta Sanchez, Statement on NFIRE Report Language Request Strategic Forces Subcommittee Mark-up (Washington, DC, May 6, 2004), available online: Congresswoman Sanchez’s website <<http://www.lorettasanchez.house.gov/statements2.cfm?id=269>> (date accessed: April 8, 2005).

<sup>13</sup> Center for International and Security Studies at Maryland, “Near Field Infrared Experiment (NFIRE)”, available online: CISS website <<http://www.cissm.umd.edu/documents/NFire.pdf>> (date accessed: April 8, 2005).

<sup>14</sup> Stojak, *supra* note 11, at 192.

<sup>15</sup> Text available online <<http://www.austlii.edu.au/au/other/dfat/treaties/1938/8.html>> (date accessed: 09-Mar-05).

broadcasting within their respective territories of any transmission which to the detriment of good international understanding is of such a character as to incite the population of any territory to acts incompatible with the internal order or the security of a territory of a High Contracting Party.” These States are also obliged to ensure that broadcasting “shall not constitute an incitement either to war against another High Contracting Party or to acts likely to lead thereto.” The thrust of this Convention is to promote international understanding and prevent any incitement to war. However, the Convention has so far been ratified/adhered to only by about 70 States and major exceptions are the US and China.<sup>16</sup>

In addition, the States could ratify, in case they did not yet, the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD) which prohibits a State Party “to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party”, where the term “environment” is understood to include outer space, according to Article II of this Convention.

(III) Adding Dispute Settlement Authority to the International Telecommunication Union (ITU)

The Constitution and Convention of the International Telecommunication Union (ITU) as well as the ITU Radio Regulations<sup>17</sup> create an international legal framework for the use of outer space as they contain for precise legal rules for an orderly use of two indispensable sources for the exploration and use of outer space; i.e. radio frequencies and satellite orbits. More importantly, the ITU legal regime, which is almost universal in scope as about 190 States are Parties to these legal instruments, prohibits any “harmful interference” with civilian and military space missions that operate in accordance with these international instruments.<sup>18</sup> According to the ITU Radio Regulations, the resolution of harmful interference is exclusively a bilateral matter, as the State “having jurisdiction over the receiving station experiencing the interference [is required only to] inform the administration having jurisdiction over the transmitting station whose service is being interfered with.”<sup>19</sup> The role of the ITU as an international organization is limited to be merely a facilitator of exchange of information between the parties concerned with harmful interference. In other words, the ITU lacks meaningful dispute settlement authority in cases of harmful interference. Therefore, States could strengthen the ITU regulations and procedures in order to prevent the possibilities of and find effective solution to cases of harmful interference. One of the first steps States might take in this direction is the adherence to the Optional Protocol on the Compulsory Settlement of Disputes Relating to this Constitution, to the Convention, and to the Administrative Regulations.<sup>20</sup>

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<sup>16</sup> Text available online <<http://untreaty.un.org/ENGLISH/bible/englishinternetbible/partII/treaty-1.asp>> (date accessed: 10-Mar-05).

<sup>17</sup> International Telecommunication Union, Final Acts of the Plenipotentiary Conference (Marrakesh, 2002), Instrument amending the Constitution of the International Telecommunication Union (Minneapolis, 1998) and Instrument amending the Convention of the International Telecommunication Union (Minneapolis, 1998), as well as ITU, Radio Regulations (2004 ed.).

<sup>18</sup> ITU, Constitution, *ibid*, Articles 45 and 48; ITU, Radio Regulations, *ibid*, Article 15.

<sup>19</sup> ITU, Radio Regulations, Article 15, Section VI (Procedure in a case of harmful interference).

<sup>20</sup> ITU, Constitution, *supra* note 17, Article 56.

(IV) Promote National Legislation

In recent years, the private sector also has become a major actor in space activities. Yet, to date only a handful of space-faring nations have adopted national regulations and created appropriate licensing mechanisms to ensure compliance with international treaty obligations. It is suggested that space-active countries should urgently adopt legislation which could assume domestic implementation of the outer space treaties, and support international cooperation in the peaceful uses of outer space (for more details, see option 6, below).

**Suggested Action for National Legislators in Implementing this Policy Option:**

Depending upon the procedure for adopting international treaties in national law, the role of national legislators in promoting the ratification of a treaty may vary. In case a national parliament is authorized to adopt a law ratifying a treaty, national legislators from States that have not yet ratify some of the above mentioned treaties are encouraged to initiate bills by which their country becomes a Party to these treaties. If other governmental body is authorized to ratify international treaties, the national legislators may make recommendations before such bodies in favour of the ratification of these treaties.

**Option 3: Multilateral Efforts to Expand the International Legal Regime**

If one is of the opinion that the existing international legal regime is inadequate and contains loopholes that may eventually lead to space weaponization (see the argument presented under Option 1), a logical option would be to attempt to expand and modernize the existing multilateral legal framework. States have several options:

- adopt a multilateral agreement imposing a comprehensive ban on all space-based weapons or a specific type of space weapons;
- adopt so-called "rules of the road"
- define and implement Confidence-Building Measures (CBMs).

In this context, the issue of the appropriate forum for negotiating and adopting such multilateral agreements should be also discussed.

(I) Adopting Multilateral Agreements Banning Space Weapons

Several international initiatives calling for a firm prohibition of *space-based weapons* have been already taken. Among the most recent such initiatives is the working paper presented at the UN Conference on Disarmament in June 2002 by the delegations of China and the Russian Federation, co-sponsored by a group of other States. This document outlines possible elements for a future international legal agreement on the prevention of the deployment of weapons in outer space, the threat or use of force against outer space objects.<sup>21</sup> While acknowledging that the existing legal regimes governing outer space activities and the existing agreements on arms control and disarmament relevant to outer space "have played a positive role in the peaceful uses of outer

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<sup>21</sup> Working Paper Presented by the Delegations of China, the Russian Federation, Vietnam, Indonesia, Belarus, Zimbabwe and Syrian Arab Republic, "Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects", CD/1679, 28 June 2002.

space", the Chinese-Russian initiative points out that these legal regimes and agreements "are unable to effectively prevent the deployment of weapons and an arms race in outer space."<sup>22</sup> In this context, the sponsors of this proposal suggest that:

"Only a treaty-based prohibition of the deployment of weapons in outer space and the prevention of the threat or use of force against outer space objects can eliminate the emerging threat of an arms race in outer space and ensure the security for outer space assets of all countries which is an essential condition for the maintenance of world peace."<sup>23</sup>

The sponsors of this initiative suggest several core elements that would have to be included in the proposed treaty, e.g., the obligation of State Parties to not place in orbit around the Earth objects carrying *any kinds of weapons*, not to install such weapons on celestial bodies, or not to station such weapons in outer space in any other manner, not to resort to the threat or use of force against outer space objects and not to assist or encourage other States, groups of States, or international organizations to participate in activities prohibited by this treaty.<sup>24</sup> However, the proposed text of the agreement provides that the research and use of outer space for peaceful purposes or other military uses are not to be prohibited under this treaty and that each State Party is to be free to carry out activities in outer space in accordance with the general principles of international law, provided that these activities do not violate the sovereignty and security of other States.<sup>25</sup> It should also be mentioned that another important element of the proposed treaty calls for the implementation of Confidence Building Measures (CBMs), aimed at enhancing mutual trust. To this end, each State Party will have the obligation to make public its space program, declare the locations and scope of its space launch sites, the property and parameters of objects being launched into outer space and notify the launching activities.<sup>26</sup>

More recently, on 26 August 2004, China and the Russian Federation reiterated their belief that the strengthening of the existing legal system governing outer space is activities necessary "by overcoming its shortcoming and rectifying their defects so as to effectively prevent the weaponization of and an arms race in outer space."<sup>27</sup> According to the Russian and Chinese delegations, the best way to achieve these results is through negotiating an international legal instrument on the prevention of the weaponization of outer space. The sponsors of this initiative expressed their hope that the Conference on Disarmament would consider their proposal as a basis for negotiating and concluding an agreement. Although this proposal has been supported by some States, to date, however, no visible progress on this initiative has occurred.

A similar, somewhat more extensive, initiative for a ban on space-based weapons was advanced by the Institute for Cooperation in Space, a non-governmental organization, which promotes the idea of a World Space Preservation Treaty as an effective and verifiable world agreement.<sup>28</sup> In addition to implementing a ban on space-based weapons, the treaty will also

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<sup>22</sup> *Ibid.*, Preamble.

<sup>23</sup> *Ibid.*

<sup>24</sup> *Ibid.*, Part III.

<sup>25</sup> *Ibid.*, Part V.

<sup>26</sup> *Ibid.*, Part VI.

<sup>27</sup> A Non-paper by Chinese and Russian Delegation to the Conference on Disarmament, "Existing International Legal Instruments and Prevention of the Weaponization of Outer Space", 26 August 2004.

<sup>28</sup> Draft World Space Preservation Treaty, text available on Global Network-Draft World Treaty Banning Space-Based Weapons, online: Global Network website <[http://www.globalnet.free-online.co.uk/articles/world\\_treaty.htm](http://www.globalnet.free-online.co.uk/articles/world_treaty.htm)> (date accessed: 9 March 2005).

implement a ban on the use of weapons to destroy or damage objects that are in orbit and will immediately order the permanent termination of research and development, testing, manufacturing, production and deployment of all space-based weapons.<sup>29</sup> The Treaty will, however, allow for space exploration, research, development, testing, manufacturing, production and deployment of civil, commercial and defense activities in space that are not related to space-based weapons.<sup>30</sup> The draft text provides also a definition of the terms "space-based weapon" and "space-based system"<sup>31</sup> which are understood to mean "a device capable of damaging or destroying an object or person (whether in outer space, in the atmosphere, or on earth) by:

- (1) Firing one or more projectiles to collide with that object or person;
- (2) Detonating one or more explosive devices in close proximity to that object or person;
- (3) Directing a source or energy against that object or person; or
- (4) Any other underdeveloped means."<sup>32</sup>

The procedure for entering into force requires that 20 States ratify this Treaty. The authors of this proposal hope that the 2006 Vancouver World Peace Conference will serve as a treaty-signing conference for the Space Preservation Treaty.<sup>33</sup> Also, the UN Member States leaders can individually sign this Treaty and immediately deposit it with the UN Secretary General as Treaty Depository. Once the Treaty enters in force, an outer space peacekeeping agency will be established and empowered to monitor and enforce the ban on space-based weapons.

Another possibility for a treaty in this category would be an international agreement banning only a specific type of space weapon (a so-called "partial treaty"), such as one prohibiting only debris-causing weapons or one banning space-based weapons but not ground-based ASATs.<sup>34</sup>

## (II) Adopting "Rules of the Road"

Another option for States is to negotiate and adopt a code of conduct, or what is called "Rules of the Road," aimed to prevent incidents and dangerous military activities in space. A draft for such a code is advocated by the Henry L. Stimson Center's Space Security Project and covers key activities such as avoiding collisions and simulated attacks, creating special caution and safety areas around satellites, developing safer traffic management practices, prohibiting anti-satellite tests in space, providing reassurance through information exchanges, transparency and notification measures, and adopting more stringent space debris mitigation measures.<sup>35</sup> There is a precedent for such codes of conduct: in the early 1970s the United States and the Soviet Union entered into

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<sup>29</sup> *Ibid.*, Art. I.

<sup>30</sup> *Ibid.*

<sup>31</sup> Interestingly, the text also provides a definition for "outer space" as referring to "all space extending upward from an altitude greater than 110 kilometers above sea level." *Ibid.*, Art. V.

<sup>32</sup> *Ibid.*, Art. V.

<sup>33</sup> See the Institute for Cooperation in Space website, "Space Preservation: Vancouver B.C. Resolution", online <[http://www.peaceinspace.com/sp\\_vancouver.shtml](http://www.peaceinspace.com/sp_vancouver.shtml)> (date accessed: 9 March 2005).

<sup>34</sup> James Clay Moltz, "Breaking the Deadlock on Space Arms Control," *Arms Control Today*, Vol. 32, No. 3, April 2002, online <[http://www.armscontrol.org/act/2002\\_04/moltzapril02.asp?print](http://www.armscontrol.org/act/2002_04/moltzapril02.asp?print)> (date accessed: 29 May 2005).

<sup>35</sup> See Henry L. Stimson Center's Space security Project, Model Code of Conduct for the Prevention of Incidents and Dangerous Military Practices in Outer Space, text available in M. Krepon and M. Heller, "A Model Code of Conduct for Space Assurance", *Disarmament Diplomacy*, Issue no. 77 (May/June 2004), online: Acronym Organization website <<http://www.acronym.org.uk/dd/dd77/77mkmh.htm>> (date accessed 27 Feb. 2005).

executive agreements to prevent dangerous military practices at sea, on the ground, and in the air.<sup>36</sup> In the context of space security issues, States should be encouraged to adopt such rules of conduct aimed at setting standards for responsible behavior in the use and exploration of outer space.

(III) Defining and Implementing Confidence-Building Measures (CBMs) and Providing for Improved Means of Verification of Compliance with Treaties and Agreements

Given the potential difficulties associated with the negotiation and adoption of multilateral treaties dealing with the prevention of an arms race in outer space, the so-called "Confidence-Building Measures" (CBMs) are viewed by many as more practical initial steps towards arms control. CBMs are primarily of a political nature and are seen as an important element in increasing trust among States. Within the framework of the UN Conference on Disarmament, the CBMs have received considerable attention in recent years. Proposals regarding CBMs fall into three broad categories:<sup>37</sup>

- Measures to increase the transparency of space operations;
- Measures to increase the type of information concerning satellites;
- Measures establishing rules of behaviour governing space operations;
- Other co-operative projects and efforts.

By far the most frequently mentioned CBM for outer space is the improvement of the quality and timeliness of information concerning space objects that have been launched. An example of such CBM concerns the strengthening of the Registration Convention of 1975. Such proposals are centered on the provisions of Article IV, which requires States to furnish to the Secretary General of the UN very general information regarding the objects launched in outer space. Under its current wording, Article IV requires only very general descriptions of the missions, does not provide for a timely notification to the UN Registry<sup>38</sup> and does not address the need for updating spacecraft parameters. It is suggested that sharing and providing more precise information on a voluntary basis as a means of building confidence could be an approach favoured by some of the major space-faring nations. Such a voluntary system has the advantage of being able to be individually implemented by States. If a good number of States follow this practice, a separate set of confidence-building measures adopted for the space environment could emerge. Should a treaty addressing the non-weaponization be agreed upon one day, this set of CBMs could be incorporated into the treaty.

In addition, the importance of implementing means of effective verification of compliance with the treaties and agreements must not be underplayed when trying to ensure faithful observance and implementation of the current international regime. Several verification mechanisms are already in place especially regarding arms control and disarmament agreements. Possible outer space verification measures include in general remote-sensing survey (outer space to outer space survey, i.e., using satellites to monitor activities of outer space objects; outer space to earth survey, e.g.,

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<sup>36</sup> See for example, the 1972 US-Soviet Incidents at Sea Agreement, which served as an effective model for comparable agreements signed by more than thirty other nations. Few years later, the 1989 Prevention of dangerous Military Practices signed by Washington and Moscow is another example of such "Rules of the Road". Krepon and Heller (2004).

<sup>37</sup> UN Conference on Disarmament, online <[http://www.unog.ch/80256EE600585943\(httpHomepages\)/6A03113D1857348E80256F04006755F6?OpenDocument](http://www.unog.ch/80256EE600585943(httpHomepages)/6A03113D1857348E80256F04006755F6?OpenDocument)> (date accessed: 3 March 2005).

<sup>38</sup> Information is to be provided "as soon as practicable" and in practice States tend to furnish information several weeks or months after launch. See Registration Convention, *supra* note 3, Art. IV.

using satellites to monitor the activities of space vehicles on earth; and the earth to outer space survey, e.g., using ground-based facilities to monitor the activities of outer space objects) and on-site inspections (e.g., inspections of relevant space research laboratories or verification of objects intended to be launched at space rockets launching sites).<sup>39</sup>

The principle of non-interference with national technical means of verification was first established by the Strategic Arms Limitation Talks (SALT) I Treaty of 1972, between the US and USSR. The concept was adopted by the Intermediate Range Nuclear Forces (INF) Treaty, signed in 1987 by the US and USSR, and which is of indefinite duration, and by the Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I), signed in 1991 by the US and USSR and whose application was extended until 2009. The purpose of imposing a non-interference principle is to prevent an attack on or an interference with technical means, including space-orbiting means, of verifying treaty compliance. Thus, using weapons against any early warning, imaging, or intelligence satellite would be a violation of the requirement of non-interference with national means of verification in the INF and START I treaties.<sup>40</sup> The non-interference obligation was expanded to a multi-national level by the Conventional Forces in Europe (CFE) Treaty, which has 30 NATO and East European members and is of unlimited duration.<sup>41</sup>

One can mention some of the initiatives aimed at establishing verification mechanisms relating to outer space activities that were proposed over the years. For example, at the first U.N. Special Session on Disarmament in 1978, France proposed the establishment of an International Satellite Monitoring Agency (ISMA) to verify the observance of certain bilateral arms control agreements. Also, in 1984, Canada proposed setting up a PAXSAT (Pax Satellite) system to conduct verifications through space based remote sensing surveys. More recently, on 16 December 2000, the US and the Russian Federation signed a Memorandum of Understanding of Missile Launches which provides for pre- and post-launch notification of all ballistic missile tests and space launches and to this end, the Parties agreed to establish a Joint Data Exchange Centre (JDEC) in Moscow, staffed by military personnel from the two countries. It should be mentioned that the agreement is not yet effectively implemented.

States may provide for verification systems aimed directly at ensuring the absence of deployment of weapons in outer space. As a matter of fact, such initiative was already formulated in 1983 by the former Soviet Union and recommended setting up an international observer team which was to be informed in due course of the venue and timing of all space launches, the type of the launching vehicle, and general information concerning launching objects.<sup>42</sup>

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<sup>39</sup> "Verification Aspects of PAROS", A Non-Paper by Chinese and Russian Delegations to the Conference on Disarmament (26 August 2004), available online: Geneva Mission to UN website <<http://genevamission.tou.n.fmprc.gov.cn/eng/66952.html>> (date accessed: 10 April 2005).

<sup>40</sup> Union of Concerned Scientists, "Global Security: International Legal Agreements Relevant to Space Weapons", online: Union of Concerned Scientists website <[http://www.ucsusa.org/global\\_security/space\\_weapons](http://www.ucsusa.org/global_security/space_weapons)> (date accessed: 21 January 2005) [hereinafter Union of Concern Scientists, "Global Security International"].

<sup>41</sup> Some argue that pursuant to the provisions banning interference with national technical means of verification in the CFE Treaty, Russia, France, the European Union or any other State Party to this treaty could also take legal action against actions toward space weaponization. Union of Concern Scientists, "Global Security International" supra note .

<sup>42</sup> *Ibid.*

As another possible confidence building measure one can also mention the ongoing cooperation within the COPUOS on space debris mitigation under the auspices of the Inter-Agency Debris Coordination Committee (IADC). This international governmental forum is based on worldwide coordination of activities related to the issues of artificially made and natural debris in space with the purpose of identifying debris mitigation options. The participating governmental space agencies exchange information on space debris research activities, create opportunities for cooperation in space debris research and review of the progress of ongoing cooperative activities.<sup>43</sup>

#### (IV) The Question of the Proper International Negotiating Forum

Traditionally, the negotiation and development of international provisions regarding outer space were held within the framework of the UN General Assembly and the UN Committee on the Peaceful Uses of Outer Space (COPUOS). Between 1966 and 1975, the COPUOS successfully negotiated and drafted four of the five existing international space law treaties.<sup>44</sup> The success of the negotiations within COPUOS was attributed in part to the political will of the two super powers of the time, the US and USSR, which helped ensure the quick adoption of the treaties. However, since the adoption of the Moon Agreement in 1979 (ratified only by a handful of States), COPUOS did not draft a single treaty. Its consensus decision-making rule may be responsible in part for COPUOS' inability to be more active recently in the positive development of space law. It should be mentioned that the consensus requirement as a decision-making rule is criticized as leading to diluted agreements resulting from the fact that only the least common denominator of language can usually be agreed upon. Furthermore, the progressive increase in the number of States now members of COPUOS – from 18 in 1958 to the current 66 – is also seen as a handicap to reaching a consensus in the decision-making process. Perhaps the most important criticism is that the rule of consensus decision-making *de facto* grants every State a veto power. This has been notably the case with the United States, which has consistently opposed many attempts within the COPUOS to discuss issues pertaining to the prevention of an arms race in outer space or to discuss the possibility of amending some of the existing international space law treaties. Specifically, attempts to expand the jurisdiction of COPUOS to include the military uses of outer space have been opposed by the United States based on its argument that the COPUOS is responsible for the development of international cooperation in the peaceful uses of outer space and that the Conference on Disarmament (CD) is the sole forum for all disarmament matters, including arms control in outer space.<sup>45</sup>

With regard to the mandate of the CD, it must be noted that this forum has the authority to conduct negotiations regarding multilateral arms control agreements. Since 1981, the CD has been debating an agenda item entitled “Prevention of an Arms Race in Outer Space” (PAROS) with a view of preventing the weaponization of outer space and negotiating a treaty to regulate the military uses of space. The Conference on Disarmament made some progress in drafting this treaty until disagreement between China and the US in 1995 prevented consensus on the creation of the Ad Hoc committee which negotiated PAROS. US opposition to PAROS blocked action on both items

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<sup>43</sup> Inter-Agency Debris Coordination Committee website, online <<http://www.iadc-online.org/>> (date accessed: 29 May 2005).

<sup>44</sup> The Outer Space Treaty of 27 January 1967, the Rescue Agreement of 22 April 1968, the Liability Convention of 29 March 1972, and the Moon Agreement of 18 December 1979. The fifth space law treaty, i.e., the Registration Convention, was adopted by the UN General Assembly on 12 November 1974.

<sup>45</sup> See UN Doc. A/RES/38/80, 15 December 1983. Negative votes were cast by: Australia, Belgium, France, Federal Republic of Germany, Israel, Italy, Japan, Luxemburg, the Netherlands, New Zealand, UK and the USA. Abstaining States were: Canada, Denmark, Finland, Iceland, Norway, Portugal, Spain and Sweden.

and the CD has remained effectively paralyzed since 1995. It should be mentioned that the CD also requires a consensus for agreeing on its work agenda and for reaching decisions. The stumbling bloc to an agreement in the CD is the inability of the member States to agree on the crucial definition of a "space weapon".

Given these difficulties faced in reaching agreements in the traditional forums for multilateral negotiations, alternative mechanisms need to be considered to allow issues to be presented openly and discussed efficiently in the presence of all interested parties. One must take into account that the current environment is characterized by an increased privatization and commercialization of space activities and, as a consequence, not only that the number of stakeholders in outer space has increased, but the constituencies they represent have also expanded to include government, military, commercial interests and civil society.

An example of innovative approaches to multilateral negotiation is the Ottawa Process which led to the successful negotiation of the International Convention Banning the Use of Landmines (ICBL). The key element of the Ottawa Process was the partnership created between governments, international organizations and non-governmental organizations (NGOs). The involvement of NGOs is viewed by many as having brought a significant change in international law-making process. The advantage of this approach is that a coalition of like-minded States would not be constrained by the formalities of diplomatic procedure and would be free to set their own rules of procedure. In the Landmine negotiations, the Parties decided not to use the consensus decision-making rule. The increasing number of stakeholders in activities carried out in outer space (government, military, and the private sector) makes this type of process more appealing as a larger group of representatives with an interest in space security can forge an agreement together from the beginning of the process. The inclusion of the commercial sector in building a coalition of the like-minded nation-states to address issues of space and security appears to be essential in the current environment. With respect to initiating an Ottawa-type process in order to reach multilateral agreements related to space weaponization, it would be important that a core group of States, non-governmental organizations and private sector representatives combine their efforts to draft a work program which may address the merits of drafting a new treaty or amending existing ones. The role of the NGOs, by stimulating awareness of important issues, helps to create a favourable political climate for strengthening the trust between States.

**Suggested Action for National Legislators in Implementing this Policy Option:** National legislators who support the idea of modernizing the current legal regime could encourage their governments to promote legislative initiatives such as the ones mentioned above before the United Nations or other international fora where issues of space weaponization are discussed. In addition, national legislators could promote before their governments the idea of initiating talks on a multilateral basis aimed at defining acceptable rules of conduct covering military activities in outer space and ways to allow for mutual monitoring and surveillance of space-related activities and the exchange of technical data regarding space launches as the keys to an effective verification system. Also, national legislators are encouraged to be open to innovative approaches to multilateral negotiations such as the Ottawa Process.

#### **Option 4: Regional or Bilateral Efforts to Expand the International Legal Regime - Alternative Mechanisms**

States have also the option to negotiate issues relevant to space security at a regional level or even on a bilateral basis. For example, the Ottawa process described above, under Option 3, could easily be carried out simultaneously in different regions of the world and the regional results could be subsequently coordinated and expanded to the international level. In fact, one of the successful elements in the Ottawa Process was holding smaller regional conferences to generate support for the movement, by using always the same model: creating a partnership between States and NGOs. Several States can play a leading role in starting such regional processes. For example, Brazil could play such a role in a Latin American initiative, and China and India could do the same within an Asian initiative.

Several initiatives leading eventually to multilateral treaties started with negotiations among a limited number of countries. For example, the text of the Comprehensive Test Ban Treaty, which prohibits any nuclear explosion whether for weapons or peaceful purposes, was initially negotiated, between 1977 and 1980, within a trilateral conference including the United States, the United Kingdom and the Soviet Union.<sup>46</sup> Only subsequently was negotiation of the treaty brought within the framework of the Conference on Disarmament. Examples of bilateral initiatives in arms control agreements are numerous, involving especially the United States and the former Soviet Union. This type of agreement involved mostly issues of technical means of verification and missile defense. For instance, the Strategic Arms Limitation Talks (SALT) I Treaty of 1972, concluded between the US and USSR, and established for the first time the principle of non-interference with national technical means of verification;<sup>47</sup> the Intermediate Range Nuclear Forces (INF) Treaty was signed in 1987 between the US and USSR, with an indefinite duration, and the Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I) was signed in 1991 and was extended until 2009. One should also mention the Anti-Ballistic Missile (ABM) Treaty signed between the United States and the former Soviet Union, which banned the testing and deploying of weapons in space (other than weapons of mass destruction), but the US withdrawal from this treaty, effective on 13 June 2002, rendered this prohibition null.

At a regional level, within the European Union there are definite efforts to establish a Joint Strategy for Space, within which an essential element would be building up a coherent capacity in Europe for global monitoring of environment and security issues (GMES).<sup>48</sup> The GMES is a joint initiative of the European Union and the European Space Agency (ESA).<sup>49</sup> It should also be noted that Europe has recently included in the EU Constitution a specific reference to space.<sup>50</sup>

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<sup>46</sup> Federation of American Scientists, "Comprehensive Test Ban Chronology", online: FAS website <[www.fas.org/nuke/control/ctbt/chron1.htm](http://www.fas.org/nuke/control/ctbt/chron1.htm)> (date accessed: 11 March 2005).

<sup>47</sup> It should be mentioned that the purpose of imposing a non-interference principle is to prevent an attack on or an interference with technical means, including space-orbiting means, of verifying treaty compliance.

<sup>48</sup> Joint European Commission (EC) and European Space Agency (ESA) Communication "Europe and space: Turning to a new chapter", issued on 27 September 2000.

<sup>49</sup> European Space Policy, Global Monitoring for Environment and Security, online: European Union website <[http://europa.eu.int/comm/space/gmes/index\\_en.htm](http://europa.eu.int/comm/space/gmes/index_en.htm)> (date accessed: 11 March 2005).

<sup>50</sup> Section 9 of the Treaty Establishing a Constitution for Europe, Official Journal of the European Union, C 310, Volume 47, 16.12.2004, is entitled "Research and Technological Development and Space" and requires the Members of the European Union to draw a European space policy.

**Suggested Action for National Legislators in Implementing this Policy Option:**

National legislators can play a role in urging their governments to initiate regional or bilateral negotiations of aspects related to military activities in outer space depending on the type of issues and the perceived similar position on these issues of other States.

**Option 5: Unilateral Declarations**

Another option available to any State is to make unilateral declarations regarding issues relevant to the peaceful uses of outer space. In their conduct in the international sphere, States frequently take individual initiatives or carry out unilateral acts with the intent to produce legal effects. This conduct encompasses political, economic, cultural, social, defense, security and other actions, or in other words, the whole range of activities whereby each State expresses itself and operates in its external relations.

The significance of such unilateral acts should not be underestimated. There have been calls for individual governments to make unilateral declarations pledging that they: (1) would not be the first to test, deploy or station space weapons; (2) accept certain current lawful military uses of space; and, (3) reconfirm their commitment to the peaceful uses of outer space and to international cooperation. There are several examples of such unilateral declarations and perhaps the most important and directly relevant example is that of declarations of moratorium on anti-satellite weapon (ASAT) tests. In 1983, the Soviet Union made a unilateral declaration announcing its moratorium on anti-satellite testing and has been observing it since then.<sup>51</sup> Similarly, in 1985, the US Congress imposed moratorium on American tests against objects in space and this continued until 1995.<sup>52</sup> On 26 September 2001, in a speech to the General Assembly of the United Nations, Russian Foreign Minister Igor Ivanov declared that "Preventing the deployment of weapons in outer space forms an important part of the set of measures designed to ensure strategic stability. It is our common duty before succeeding generations to keep outer space peaceful through joint efforts...As the first practical step in this direction, a moratorium could be declared on the deployment of weapons in outer space pending a relevant international agreement."<sup>53</sup> On 26<sup>th</sup> August 2004, China and the Russian Federation presented their views to the Conference on Disarmament on their joint proposal concerning the elaboration of a legal instrument in the Conference to ban weapons in outer space. In addition, Russia Federation proposed to "declare a moratorium on placement of weapons in outer space, pending a conclusion of an appropriate agreement by the international community" on the prevention of an arms race in outer space.<sup>54</sup> Continuing Russian policy of banning space weapons, the Russian Representative to the Conference on Disarmament unilaterally pledged on 5 October 2004 that Russia would "not to be the first to deploy any weapons in outer

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<sup>51</sup> L. Grego "A History of US and Soviet ASAT Programs" backgrounder, Union of Concerned Scientists, April 9, 2003, at <[http://www.ucsusa.org/global\\_security/spaceweapons/page.cfm?pageID=1151#new](http://www.ucsusa.org/global_security/spaceweapons/page.cfm?pageID=1151#new)> (date accessed: 26-Feb-05).

<sup>52</sup> "Space Weaponization" National Defense University, National War College, Lt. Col William H Callahan jr. Class of 2000, Course: 5605, Seminar o (20 April 2000) at <<http://64.233.161.104/search?q=cache:iX1Dea9K0gwJ:www.ndu.edu/library/n2/n005605o.pdf+Moratorium+on>> (date accessed: 26-Feb-05).

<sup>53</sup> "Weapons in Space" at <<http://www.eisenhowerinstitute.org/programs/globalpartnerships/fos/newfrontier/weapons.htm>> (date accessed: 05-Nov-03).

<sup>54</sup> *United Nations Press Release, CHINA AND RUSSIA PRESENT NEW CONTRIBUTIONS TO CONFERENCE ON BANNING WEAPONS IN OUTER SPACE*, <http://www2.unog.ch/news2/documents/newsen/dc04033e.htm> (date accessed: 02-Apr-05)

space, and...called on all space powers to follow its example.”<sup>55</sup> Russia, by expressing its unilateral commitment not to be the first nation to deploy any space weapons, implicitly indicates the possibility that the U.S. might trigger arms race in space and thus expects the Americans’ willingness to abstain from such deployment.

A unilateral declaration can have binding legal effects on the State that makes it.<sup>56</sup> However, such obligation arises only when a declaration is (a) specific in its contents and terms and (b) made with the intention of voluntarily assuming international obligation with respect to that State’s future course of action. The main purpose of such declarations is generally to clarify and/or clearly assert the position and official policy of the declaratory State so that other concerned or interested “States may take cognizance of unilateral declarations and place confidence in them, and are entitled to require that the obligation thus created be respected”<sup>57</sup>

By making unilateral declarations, individual States could help maintain and promote the peaceful uses of outer space. If a significant number of States (both space powers and non-space powers) follow the 2004 Russian call by unilaterally declaring not to be the first to place weapons of any kind in outer space, there would be a strong international opinion that space must not be weaponized. In addition, given the legal effect of such declarations, there is a good potential for an important role that such declarations could eventually play in: (1) drafting an international agreement banning space weapons and/or military space activities; and, (2) facilitating trade in space products and services, and in the transfer of dual-use technologies. Once a State expresses clearly its policy that it will not use outer space for military purposes, other States possessing space technologies would feel safe and encouraged in selling space products and even transferring space technology to that State.

However, the making and not-making of any kind of unilateral declaration depends to a large extent upon domestic (national) policies and/or political situations. Because of its one-sided nature, a unilateral declaration can be withdrawn at any time by the State that made it and no explanation to the world community is required for such an action. For, example, the US moratorium on ASAT tests “was allowed to lapse by a Republican-led congress in 1995.”<sup>58</sup> Though the Soviet Union (presently the Russian Federation) has been continuing to honor its moratorium on ASAT tests, yet it did state several times its intention to rescind this self-imposed moratorium.<sup>59</sup> Being vulnerable to superior capabilities of its actual or potential enemies, a State might not be so willing or feel so encouraged to make any unilateral declaration that binds its future action. States, particularly the stronger ones, guard their sovereignty (freedom of action) zealously.

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<sup>55</sup> Center for Defense Information, CDI Russia Weekly, RIA Novosti October 14, 2004, at <http://www.cdi.org/russia/326-16.cfm> (date accessed: 26-Feb-05).

<sup>56</sup> Ram Jakhu, “Legal Aspects of Unilateral Declarations and Measures for Disarmament in Space”, in Nicolas M. Matte, (ed.), *Outer Space in the 1990’s: The Role of Arms Control: Security, Technical, and Legal Implications*, CRASL, 1992, 185, at 188.189.

<sup>57</sup> Nuclear Test Case (1974), *International Court of Justice Reports*, 253, at 267-8.

<sup>58</sup> “Space Weaponization” National Defense University, National War College, Lt. Col William H Callahan jr. Class of 2000, Course: 5605, Seminar o (20 April 2000) at <<http://64.233.161.104/search?q=cache:IX1Dea9K0gwj:www.ndu.edu/library/n2/n005605o.pdf+Moratorium+on>> (date accessed: 26-Feb-05).

<sup>59</sup> “ASAT Arms Control: History” at <<http://www.wps.princeton.edu/cgi-bin/byteserv.prl/~ota/disk2/1985/8502/850207.PDF>> (date accessed: 26-Feb-05) at 102.

Therefore, this option does provide an avenue to ensure and keep outer space for exclusively peaceful purposes, but may not be easily followed by all States, particularly those that are space-faring nations or that fear the acceleration of military might of their enemies.

**Suggested Action for National Legislators in Implementing this Policy Option:** National legislators can initiate in their respective parliaments the adoption of unilateral declarations which reflect their State's views regarding military uses of outer space.

## Option 6: Preserving Weapons-Free Space through National Legislation

A final option is to adopt national legislation addressing issues pertinent to space security. For example, a year after the launching of Sputnik I, the United States adopted the National Aeronautics and Space Act of 1958<sup>60</sup> which states that it "is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all [hu]mankind." Among the more recent initiatives, one should mention the US Space Preservation Bill, which was introduced before the 107<sup>th</sup> Congress<sup>61</sup> and reintroduced before the 108<sup>th</sup> Congress<sup>62</sup> by the Democrat Representative Dennis Kucinich. The purpose of this Bill is "to preserve the cooperative, peaceful uses of space for the benefit of all humankind by prohibiting the basing of weapons in space and the use of weapons to destroy or damage objects in space that are in orbit". The Bill requires the President of the US to "implement a ban on space-based weapons of the United States and the use of weapons of the United States to destroy or damage objects in space that are in orbit" and to "immediately order the termination of research and development, testing, manufacturing, production, and deployment of all space-based weapons of the United States."<sup>63</sup> Also, the President should "direct the United States representatives to the United Nations and other international organizations to immediately work toward negotiating, adopting, and implementing an international treaty banning space-based weapons and the use of weapons to destroy or damage objects in space that are in orbit."<sup>64</sup> To date, no action on this Bill has been taken and its chances of becoming law in the foreseeable future are extremely low.

It should also be noted that the Russian Federation in its space legislation includes the term "peaceful purposes" in relation to space activities. Thus, in the Regulations of the Russian Space Agency<sup>65</sup> it is provided that "the Russian Space Agency (RSA) is a federal body of executive power which ensures implementation of the state policy in the field of research and use of outer space for peaceful purposes"<sup>66</sup> and that among its main tasks is "pursuing the state policy in research and use of outer space in peaceful purposes".<sup>67</sup> In order to fulfill this task, the Russian Space Agency is

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<sup>60</sup> 42 USC 2451 (a).

<sup>61</sup> House of Representatives, US House Space Preservation Bill, 107th Congress, 2d Session HR 3616 (23 January 2002).

<sup>62</sup> House of Representatives, US Space Presentation Bill, 108th Congress, 1st Session, HR 3657 (8 December 2003).

<sup>63</sup> HR 3657, Section 3, "Ban on Basing of Weapons in Space and the Use of Weapons Against Objects in Space in Orbit".

<sup>64</sup> *Ibid.*, Section 4, "International treaty Banning Space-Based Weapons and the Use of Weapons Against Objects in Space in Orbit". The draft for such a World Space Presentation Treaty was discussed under Option 3.

<sup>65</sup> Approved by the Resolution of the Government of the Russian Federation on May 15, 1995.

<sup>66</sup> *Ibid.*, Art. 1.

<sup>67</sup> *Ibid.* Art. 3.

entitled to conduct "negotiations to conclude international agreements in the field of exploration and uses of outer space for peaceful purposes".<sup>68</sup>

However, neither the Russian nor the US space legislation contain a definition of the "peaceful purposes" or an indication of which activities would not be considered as "peaceful."

Other countries have also adopted space laws and policies that address the issue of peaceful uses of outer space. For example, Argentina, in its National Decree for the Creation of the National Commission on Space Activities, provides that this Commission is entitled to propose the National Space Plan for the use and development of space sciences and technology for "peaceful purposes".<sup>69</sup> Also the Decree requires that "that all elements, parts and components" of its missile program Condor II "in all its versions and stages of development existing to date" to be "deactivated, dismantled, reconverted and/or disabled in accordance with its possibilities for use for peaceful applications and purposes, in such a manner as to reliably and finally bring about the complete and irreversible termination of the project in question".<sup>70</sup>

Another example is provided by the Canadian Space Agency Act which states that the Canadian Space Agency has the objective to promote the "peaceful use and development of space"<sup>71</sup> and the obligation to "cooperate with the space and space-related agencies of other countries in the peaceful use and development of space"<sup>72</sup>

Similarly, the Chilean law for the Establishment of a Presidential Advisory Committee known as the Chilean Space Agency, provides that it is the "desire of the Government of Chile to demonstrate to the international community that it advocates the use of outer space for peaceful purposes" and, thus it wishes to adopt a consistent approach that reflects this position.<sup>73</sup> The Chilean Space Agency is empowered to "propose campaigns to promote space activities and the use of outer space for peaceful purposes"<sup>74</sup>

One should also mention that Japan provides in its Law Concerning the National Space Development Agency of Japan<sup>75</sup> that this Agency is established "with a view to conducting in an integrated, systematic and effective manner the development, launching and tracking of artificial satellites and rockets for the launching of artificial satellites, exclusively for peaceful purposes, thereby contributing to the promotion of space development and utilization."<sup>76</sup>

Finally, it should also be mentioned that Ukraine has also included relevant provisions in the Ordinance of the Supreme Soviet of Ukraine on Space Activity Law of Ukraine of 15 November 1996,<sup>77</sup> which states that the national regulation and management of Ukrainian space activities must

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<sup>68</sup> *Ibid.*, Art. 4.

<sup>69</sup> Argentina, National Decree no. 995/91, Creation of the National Commission on Space Activities, Art. 2.

<sup>70</sup> *Ibid.*, Art. 8.

<sup>71</sup> Canadian Space Agency Act, 1990, C. 13, Art. 4.

<sup>72</sup> *Ibid.*, Art. 5 (d).

<sup>73</sup> Republic of Chile, Ministry of National Defence, Office of the Under-Secretary of Aviation, Establishment of a Presidential Advisory Committee known as the Chilean Space Agency, Official Gazette No. 37039 of 17 August 2001, Preamble.

<sup>74</sup> *Ibid.*, Art. 2 (i).

<sup>75</sup> Law No. 50 of June 23, 1969, as amended.

<sup>76</sup> *Ibid.*, Art. 1.

<sup>77</sup> VVRU, 1997, p. 2.

be carried on by means of "elaboration of the conceptual bases of State policy in relation to the exploration and use of outer space for peaceful purposes and in the interests of State security".<sup>78</sup>

**Suggested Action for National Legislators in Implementing this Policy Option:** The role of national legislators is crucial in promoting and implementing such policy option either by initiating draft legislation or by urging their government to adopt pertinent policies regarding legitimate national activities in outer space.

## Conclusion

Each of the options discussed above present advantages and disadvantages for individual States and for the international community as a whole. The options presented are not mutually exclusive. Indeed, a combination of policy and legal approaches would probably be the best way to address successfully these controversial issues. For example, if the need for modernizing the current regime is felt, a wide variety of measures are available for States, ranging from the relatively modest initiatives consisting of adopting a Code of Conduct and/or establishing launch notification agreements to adopting unilateral declarations containing firm commitments. In addition, States may opt for far reaching approach of getting involved in negotiating treaties banning space-based weapons, either on a regional or an international basis. In deciding which is the preferable option for a particular State requires one to take into account the space interests of that State, the interests of its potential space competitors and the purpose envisioned by adopting the respective option. A summary chart of the main elements and actions recommended to national legislators follows.

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<sup>78</sup> *Ibid.*, Art. 5.

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<b>Option</b>	<b>Main elements</b>	<b>Action(s) Recommended to National Legislators in Order to Implement the Option</b>
1. Maintaining the Status Quo	Accepting that the existing outer space regime is sufficient to adequately protect the interests in outer space of all States and ensure that the uses of outer space are limited to those that are "peaceful".	No specific action needed.
2. Strengthening of Existing International and National Legal Frameworks	Accepting that applicability of the current legal regime can and must be expanded to more States and the effectiveness of this regime's implementation must be improved by taking full advantage of consultancy mechanisms, transparency requirements, better means of verification of compliance, and setting alternative dispute resolution authorities.	- Ratifying treaties and agreements not yet ratified by their country or recommending ratification to the appropriate governmental body.
3. Multilateral Efforts to Expand the Existing International Legal Regime	Accepting that the current legal regime presents loopholes that may eventually lead to a weaponization of outer space, it is argued that there is a need to modernize the existing international legal framework applicable to the peaceful uses of outer space either by adopting a multilateral agreement banning all space-based weapons or only a specific type of space weapons, or by defining so-called "rules of the road" which would set certain guidelines for State behavior aimed to prevent incidents and dangerous military activities in outer space. In addition, there is a need of set of confidence building measures which should include improved transparency of space operations and means to monitor the compliance with treaty provisions as well as arms control agreements.	- Encouraging their governments to promote legislative initiatives aimed at modernizing the current legal regime governing outer space. - Promoting before their governments the idea of initiating talks on a multilateral basis aimed at defining acceptable rules of conduct covering military activities in outer space and ways to allow for mutual monitoring and surveillance of space-related activities and the exchange of technical data regarding space launches as the keys to an effective verification system. - Express openness to innovative approaches to multilateral negotiations such as the Ottawa Process.
4. Regional and Bilateral Efforts to Expand the Existing International Legal Regime	The effort to strengthen the existing legal regime by addressing the perceived weaknesses in regulating military uses of outer	Urging their governments to initiate regional or bilateral negotiations of aspects related to military activities in outer space

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	space carried out at the regional level or even on a bilateral basis.	depending on the type of issues and the perceived similar position on these issues of other States.
5. Unilateral Declarations	States vouch to, for example, not be the first to test, deploy or station space weapons, to accept certain current lawful military uses of space or to reaffirm their commitment to the peaceful uses of outer space.	Initiating in their respective parliaments the adoption of unilateral declarations which reflect their State's views regarding military uses of outer space.
6. National Policies and Laws	States adopt national legislation and policies addressing issues relevant to space security and military uses of outer space.	Initiating draft legislation or urging their government to adopt pertinent policies regarding legitimate national activities in outer space.