

## Militarization of Space

Maria de las Mercedes Esquivel de Cocca\*

University of Buenos Aires (Argentina)

[mesquivel@2vias.com.ar](mailto:mesquivel@2vias.com.ar)

[mesquivelmerciel@hotmail.com](mailto:mesquivelmerciel@hotmail.com)

### Abstract

We can see, with pain and sorrow, how there are war, hostilities and violence, in all continents. Space has become an active factor in these events by offering best quality information to our TV sets and showing critical targets to the nations in a dispute. I shall analyze if this last application and any other hostile function of space technology, trespasses what is established in art. IV of the Outer Space Treaty and other similar legal provisions.

Space technology has showed itself as an efficient and hardly comparable means for war, it has also performed as a perfect instrument for education, information, communication, environment protection, and art, as well.

I shall develop the meaning of utilizing space with exclusive peaceful purposes, and which is the real sense of peace. Information provided by satellite applied to war, may also infringe other express space legal provisions, i.e., harm to Earth environment via massive attacks, nuclear contamination or biological effects of an attack to a space predefined target. I shall also compare what some national laws establish on this matter, as well as the attitude of space nations towards the *corpus juris spatialis* provisions.

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The development of the principle of international cooperation in the last years, in order to give support to international peace and security, shall be also studied.

Finally, there is a need of establishing namely what can and what cannot be done in the field of space applications in case they can be deviated in order to achieve hostile aims. This regulation must be made by expressing clearly the principle and avoiding any enumeration of activities that could be unfaithfully understood, as it happened with art. IV of the Outer Space Treaty.

### Peace

It has been said that *there is no way to peace, peace is the way*. I believe that peace is not a state of things but a feeling born from peoples heart, when order and justice offer an adequate frame to develop men life. It cannot be imposed, for it rises spontaneously when all conditions are given and when man feels that there is no risk in opening arms for embracing instead of closing wrists to fight against others or defend themselves. For this, truthfulness and confidence are necessary.

To achieve peace, it is also necessary to have it as an aim in an immovable propose. Therefore, in accordance to the principle of coherence, one must put all required means in order to reach the goal in mind, or, in better words, in heart.

***Moral conditions for Peace: justice, order, thorough will and con-***

### ***vincement, constancy, patience, and courage.***

There cannot be peace without order and justice. Chaos and injustice bring discomfort and violent feelings in the people. In many countries we can see people claiming or even fighting for a new order of peace and justice, unable to propose alternative ways, they just stay trying to put away what they feel like undeserved. Many reasons could explain this worldwide phenomenon, but it is clear that it would be impossible in a climate of justice and order.

To achieve a world in peace, in our times, is a hard task upon each of us as a society. There is a social responsibility in order to put all means towards peace. A special role has been assigned to scientists and technicians, whose knowledge, efforts and experience may change the present state of things.

I have said that peace is a feeling and a goal. As a feeling, it is born spontaneously in men's heart, but as a goal, it is a matter of will. The strength of the conviction in the need of peace, will measure the possibilities to achieve it. Peace as a moral value must be accompanied by other values as constancy, patience and courage.

Constancy is an indispensable requisite for it is difficult to change a culture of hostility and domination. It may rise from the conviction in the need to pursue peace as an aim. If not, the most developed part of society: educators, thinkers, artists, scientists, technicians, must preserve it and make possible, from their own role, this cultural evolution. Modern politicians are not able to collaborate in this function because they only search the closest convenience, losing the further scope of the path of peace.

In disarmament documents we often see references to tolerance, and I think this is wrong. Peace does not need tolerance, it requires patience. Tolerance means temporary acceptance of what is believed as wrong, in the idea that no change is possible. We tolerate a bad singer, a smoker, a dirty person, someone ugly, because we know that this disagreeable situation will pass, and we shall be rid of it. By other hand, patience means that we assume that what we do not like may be changed, and that time, the right words, or both, are needed to make the difference, and we are in the position to wait until such a change happens.<sup>1</sup>

Other word easily founded in international instruments is *deterrence*. Another name for cold war, directed to prevent any hostile initiative under the pressure of retaliation. It is far from the path of peace, and near to submission and fear. Moreover, the risk of an error puts the whole world in hazard.

Peace is a worthy goal, it deserves all sacrifices, it requires courage, moral fiber and the decision to face any risk to defend it. Mahatma Gandhi was a true example of what I am saying, he was a man, only a man, but nothing less than a man. He would never rise his hand against a fellow whom he considered essentially equal, in spite of differences. He practiced along his life the basic principle of respectfulness to everything and everybody. Unfortunately our so called civilization could not learn the lesson that took his life. There were other testimonies of fidelity to this principle along history, but I prefer to recall Gandhi because he was an example free of other connotations.

### ***Peaceful purposes***

To utilize space for peaceful purposes means to put all means to lead nations to

peace. Therefore any action or plan including war or hostile utilization of space, celestial bodies and/or their resources, infringes this principle and must be banned. Article IV of the 1967 Outer Space Treaty (OST), has been interpreted as if the enumeration of banned activities and weapons, is a provision that may be infringed. State parties to the Treaty make public their programs to use satellites for targeting and surveillance of military positions in order to attack or retaliate or defense by revenge. Is this coherent to the principle of utilizing space exclusively for peaceful purposes and in the benefit of all nations? I think it is a sophist way of reading the law and a rough manner to feel it. International relations in these late years is ruled by a legal framework that everybody supports, and simultaneously think, how it could be violated. And we, lawyers and jurists observe them without any question, keeping a coward silence. The role of jurist is to guide society not to lose its values, and, except a few testimonies, we are not accomplishing our duty.

The deployment of weapons in space, will not be regarded as peaceful use of space, irrespective of the public announcements and rationalizations to the contrary, affirmed Sterns and Tennen. They added that the principle that space should be utilized for peaceful purposes has not diminished its utility in the present global climate. The militarization of space would not solve the problem of the balance of terror, and they conclude expressing that the deployment of space weapons systems must occur prior to a complete identification of the ramifications that would result from such activities.<sup>2</sup>

Thus space is "militarized" though not yet "weaponized." In both war and peace, satellites vitally aid our military in inflicting and avoiding damage without being under threat themselves. But no person

could say that this militarization observes the simple and clear principle of peaceful purposes. No one with a gun in hands may affirm is moved by a peaceful feeling, if a person has a weapon, whatever the proclaimed purposes are, he/she is decided to use it against another for the reason he/she thinks is useful. Therefore, violence an aggression are previewed and accepted.

### ***Principle of International cooperation***

This is an essential principle of Space Law closely linked with the principle of peaceful utilization and to the common heritage of mankind. If space activities are performed in a common space, using common resources, in the benefit of all nations, and with peaceful purposes, it is a logical consequence that they must be developed under the principle of international cooperation. That is why Manuel Augusto Ferrer says that this is a *sine qua non* requisite for a legal space activity.

The thorough meaning of international cooperation, implies two or more active agents. It is co-operating, rather than an agent and a passive subject that allows or consent the action of the first one.

It is hard to put this principle in practice when the parties involved belong to very different stages of development, for this it is necessary to implement a very detailed program and instrument it gradually. When the case is of countries in not too different stages of development, we have to take into account the diagonal cooperation, easier to assume but also needing careful programming.

What happens if this principle is not observed? If a space faring State wants to accomplish the other space principles, as well, it faces the unjust situation of sharing its benefits with those who nothing

afforded to the space activity. This is illegitimate and means an illicit enrichment of the passive part in the matter. Other possibility is protecting those who can do less, infringing their condition of equals and submitting them to accept what the "producer" feels as an obligation of generosity, and in the amount considered as enough by the giver.

Those who share efforts, can legal, and ethically, share profits with no danger to spoil their relationship.

In order to evaluate long range results of competence lacking cooperation, Prof. Christol analyzed: "There is a manifest need for the superpowers to modify their policies of competing against each other in outer space arms race in the hope of obtaining what could only be a transitory and fleeting advantage. Such competitive policies do not produce lasting security. They actually harm projects of strategic stability."<sup>3</sup>

We must consider that at the present, mankind shares common problems, a world that, in fact, has no borders, a common outer space with common celestial bodies and resources. It should be a logical consequence easily accepted that peace and international cooperation are not only legal principles to be observed, but also a means for surviving. Since mankind is a subject of international Law, there is a common bond among its members, they belong to the same gender, they should be moved by their human condition, and spontaneously feel links of solidarity among each other, in other words, what we call *affectio humanitatis* should ground space activities.

### ***Present state of violence in space***

Today, U.S. intelligence agencies and the military count on some 100 satellites as

part of the country's national security. These space-based assets snap detailed images day and night, keeping an eye on global hotspots, even pinpointing missile launchings around the globe for early warning purposes. A satellite that in peacetime uses the global positioning system (GPS) constellation of spacecraft for navigation purposes, may in wartime utilize that same capability to target bombs or remotely piloted vehicles.<sup>4</sup>

Unless appropriate constraints are put on testing of ASATs, there could be a problem. High-speed run-ins with space debris resulting from any ASAT testing could cripple or destroy numbers of satellites in Earth orbit. Sally Reide recalled an encounter with space debris in her first voyage on the space shuttle: "A small but visible gouge in one of the space plane's window appeared about halfway through the flight. Later analysis showed that an orbiting fleck of paint caused the pit", she said. "A fleck of paint is not the same as a small piece of metal traveling at that same speed. So, as soon as you start increasing the amount of junk in low-Earth orbit, you have an unintended byproduct that starts putting some of your own quite valuable satellites at possible risk".<sup>5</sup>

There are many studies reporting the present and near future advancement of weaponization of space, these are two, technical and extended, to be recalled here, but the mere allusion of LEO and MEO satellites that could be used for war purposes deserves a mention. It is this LEO region, closest to Earth, which will be most vulnerable in the near future to earth-based ASATs, "Anti-Satellite" weapons (missiles, lasers, particle beams, etc.), currently under development by several states. For example, the American MIRACL laser has damaged orbiting satellites, as have Russian lasers. The mid-course missile interceptor currently being

developed for the U.S. NMD program will be able to target satellites up to altitudes of at least 1200 kilometers. There are many countries possessing IRBMs, missiles having ranges of 3500 km or more; they will be able to reach up to all satellites in LEO. Iraq's al Hussein, a modified Scud-B, could climb to 300 km, enabling it to reach Russia's Cosmos 2370, a military satellite imaging Chehnya. The technical prowess required for great accuracy would not be necessary to harm the targeted satellite: a simple nuclear explosion, or the dispersal of a cloud of pebbles, would suffice to damage all satellites in a large region of LEO for an extended period of time. There is also research underway in the U.S. on space-based ASATs – both missiles (e.g., "Brilliant Pebbles" – orbiting, self-guided, self-propelled) and lasers (SBL). There are some 40 to 50 satellites in MEO, "Middle Earth Orbits", orbiting at altitudes between 1000 and 35786 kilometers above the surface of the earth. Presently in this region are science satellites (e.g., the U.S. Chandra and GGS Polar, Japan's Halca and Nozomi, Europe's XMM), and navigation satellites (used for personal, commercial, and military transportation as well as for military targeting). The U.S. military/civilian NAVSTAR Global Positioning System embodies 29 of these satellites whereas the Russian Cosmos, Glonass, and Parus series totals 19 navigation satellites; some of these are non-operating spares. Also in this region are some Russian early warning satellites (Cosmos 2361 and the Oko sat). Most of these MEO satellites are in highly elliptical orbits, dipping into the LEO region during part of their travels. During these close approaches to earth, they would have the same vulnerability as do the LEO satellites. Finally, there are about 300 satellites in GEO, "Geostationary Earth Orbits". These circulate east-

erly, precisely 35786 kilometers above the Equator with a period of 24 hours; hence they remain stationary with respect to any given position on the surface of the earth. At least 29 of these belong to the U.S. military. Other militaries owning satellites in this region are Australia, Russia, and Britain. These stationary satellites serve for communications, relay, earth observation, search and rescue, weather, and research. There are also constantly staring "early-warning-satellites" (such as the U.S. DSP, and the planned SBIRS High, and the Russian Prognos), designed to detect (and initially track) ballistic missile launchings via the intense infrared emitted by their rocket engines. Some examples of U.S. commercial systems in this region are: DIRECTV, Inc. selling direct-to-home TV broadcasting; EchoStar, offering business services; GE American Communications, providing broadcasting, telecommunications, cable programming, business services, direct-to-home TV broadcasting, internet access. Intelsat, Lockheed Martin Global Telecommunications, Loral Skynet, Motient Corp., PanAmSat Corp., and WorldSpace Corp sell similar services. Non-American firms selling such services are based in Japan, Germany, Brazil, France, Spain, UK, Korea, Philippines, Argentina, Netherlands, Indonesia, China, Luxembourg, Israel, Norway, Canada, and Turkey. For the foreseeable future, the only threats to such "far-out" satellites would come either from other such satellites (firing lasers or missiles such as "Brilliant Pebbles") or from the rockets capable of launching such satellites from ground to GEO (releasing conventional or nuclear space mines or gravel clouds). At present only China, France, India, Japan, Russia, Ukraine, and the U.S. possess such rocketry. The author adds that with the possibility of an active use of space weapons, we would be returned to the terror of the

Cold War – without its stabilizing contribution of certain knowledge of the opponent's pre-attack actions. The alternative is *passive* defense of space assets together with a treaty guaranteeing a space sanctuary (equal to no weaponization of space). Though an overwhelming majority of nations in the UN (including all of the technologically adept ones, except the U.S.) have expressed support for a treaty Preventing an Arms Race in Outer Space (PAROS), such a treaty by itself would not be sufficient. There would always be fear of surreptitious weaponization of space by the opponent. (Verification would be difficult; it's hard to determine whether what's inside another's satellite is a forbidden weapon.) Passive defense of satellites would include miniaturization, redundancy, quick re-launch capability, shielding, coding and localization of communications links, and the development of alternative means to achieve current space tasks (e.g., high-altitude drone aircraft for communication and observation). Such an approach would also be expensive – but it would further, not hinder, the development of space industry. It would also further, not hinder, international stability.<sup>6</sup>

### ***Effects of violence in space***

The policy question going forward, Sally Ride states, might be simplistically stated as: Does it make sense for the U.S. to place weapons into space? One issue in this regard, she said, is developing and placing in space anti-satellite weapons, or ASATs for short. Unless appropriate constraints are put on testing of ASATs, there could be a problem. High-speed run-ins with space debris resulting from any ASAT testing could cripple or destroy numbers of satellites in Earth orbit. She recalled an encounter with space debris on her first space shuttle voyage. A small

but visible gouge in one of the space plane's window appeared about halfway through the flight. Later analysis showed that an orbiting fleck of paint caused the pit, she said: "A fleck of paint is not the same as a small piece of metal traveling at that same speed. So, as soon as you start increasing the amount of junk in low-Earth orbit, you have an unintended byproduct that starts putting some of your own quite valuable satellites at possible risk"<sup>7</sup>

### ***The issue in local legislations***

One American lawmaker is already drafting legislation before the U.S. Congress that bans the weaponization of space. Congressman Dennis Kucinich, introduced early this year The Space Preservation Act of 2002. The bill is crafted "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, and for other purposes." The terms "space-based weapon" and "space-based system" mean a device capable of damaging or destroying an object or person — whether in outer space, in atmosphere, or on Earth — by (A) firing one or more projectiles to collide with that object or person; (B) detonating one or more explosive devices in close proximity to that object or person; (C) directing a source of energy against that object or person; or (D) any other undeveloped means.<sup>8</sup>

This draft legislation also calls for an international treaty to preserve space and prevent an arms race in outer space.<sup>9</sup>

The Outer Space Law of the Russian Federation states, in its art. 4, parag. 2, as follows:

“In order to ensure strategic and ecological security it is **prohibited** in Russian Federation:

- to put into the orbit around the Earth or to deploy in outer space otherwise nuclear weapons and any other kinds of weapons of mass destruction;
- to test nuclear weapons and any other kinds of weapons of mass destruction in outer space;
- to use space objects and other space technology as a tool to influence the environment for military and **other hostile purposes**;
- to use the Moon and other celestial bodies for military purposes;
- to create deliberate immediate **threat** to safety of space activity, including safety of space objects;
- to create harmful contamination of outer space which leads to unfavorable changes of the environment, including deliberate elimination of space objects in outer space.

Other space activity under the jurisdiction of Russian Federation, which is prohibited by international treaties of Russian Federation, is not allowed as well.”

As we can see it encompasses art. IV of the 1967 Outer Space Treaty and adds some specifications in order to ban activities that might be understood as hostile or potentially hostile.

By other side, we find art 7, in which it opens the door for militarization of space upon de Defense Ministry’s decision:

“1. Space activity for purposes of defense and security of Russian Federation shall be pursued by the Ministry of Defense of Russian Federation which shall be responsible for the implementation of the long-term program and annual plans of

**works to create and use military space technology** in conjunction with other ministries and departments of Russian Federation.

2. The Ministry of Defense of Russian Federation shall within its competence:

- elaborate draft program and annual plans of works to **create and use military space technology** and, in conjunction with the Russian Space Agency of space technology applied for both scientific and national-economy purposes and for the purposes of defense and security of Russian Federation;
- form and place the state order for works to **create and use military space technology** and, in conjunction with the Russian Space Agency space technology applied both for scientific and national-economy purposes and for **purposes of defense and security** of Russian Federation;
- use space technology for purposes of defense and security of Russian Federation; ...

4. The Ministry of Defense of Russian Federation shall have the right to **temporarily** transfer idle objects of space infrastructure under its jurisdiction to the Russian Space Agency on a contractual basis to be used for space activity for scientific and national-economy purposes.”

Art. 13 of this law refers to resources to support the space program, it is interesting to quote the following part:

“...3. The resources of the Russian Space Fund shall be directed towards financing the Federal Space Program of Russia ... for works to create and use space technology, towards supporting space projects **involving innovation and military conversion**, as well as towards projects to use of the results of space activity, among

others, for promoting science, education and culture.

### **A technical initiative towards peace in space**

There is a paper that tries to evaluate present state of space militarization and suggests some measures to prevent and eliminate it in the following way:

- ✓ an immediate test ban on ballistic missiles and missiles intended for use in antiballistic missile systems, and a commitment to the complete elimination of these weapons;
- ✓ a formal negotiating machinery for realizing commitments on missile control and disarmament through a series of phased, inter-linked, overlapping stages, each involving ballistic missile reductions and limits on ranges;
- ✓ a pledge not to test and deploy space weapons as a first step to an internationally agreed space weapons ban and the demilitarization of space;
- ✓ the creation of an international monitoring and inspection system to prevent the development, testing and deployment of ballistic missiles and space weapons;
- ✓ a regular public review, reporting, and implementation assessment procedure involving all the parties to the agreement. The essential precondition at this stage would be agreement on the goals and agreement on a negotiating process to move towards them.<sup>10</sup>

As a means to achieve a final banning of space arms race, the authors recommend, as a first step, an agreement freezing space weapons and afterwards the global convention. The agreement would result in a series of phased stages, each being a step towards the ultimate goal. As a re-

flection of the seriousness of the issue, agreement would be needed at the outset on a moratorium on the further development, testing and deployment of ballistic missiles and antimissile systems. Such a "missile threat freeze" would be like earlier nuclear test ban moratoria that created time and a climate conducive for negotiations. Although not a substitute for a more comprehensive Outer Space Treaty, which would unambiguously prohibit the emplacement of weapons and weapons delivery platforms in space, a launch control regime that included inspections would help reveal efforts by any nation to place weapons in space. A ban on test flights of ballistic missiles could also have an immediate positive impact on the most volatile areas of emerging international arms competition, especially in South Asia, the Middle East and North-east Asia. Given current political circumstances, an international monitoring and inspection system will be necessary to build trust in the missile control and disarmament regime. Various technical and non-technical means of verification exist to focus on observable rocket characteristics that provide indications of rocket type and performance. The efficiency of verification depends on the stage in the missile life-cycle that is to be controlled.<sup>11</sup>

### **Argentine doctrine of peace, cooperation, solidarity and mankind**

Old Romans thought that if peace is wanted, it is necessary to be ready for war —*si vis pacem, para bellum*— so did our present leaders when they created first cold war, and afterwards followed an arms race that has put humankind in a position of an assured mutual destruction upon governments' decision. Who can have any doubt about the immorality of this scheme, there is no peace born from

such a situation, there is fear to begin hostilities because destruction, and suffer for both in the dispute, is assured. The problem with the present state of armamentism is that same pain is sure for those alien to the conflict. It is a mad dance of threat and risk. The possibility of human error adds more hazard to this fact. Cocca always answers to the Latin proposition: *si vis pacem, para pacem*, if you want peace, prepare for peace. Since peace is difficult to be foreseen at the present, we must prepare for it. This preparation must encompass a cultural evolution towards the conviction of the need of peace based on the necessity of surviving of our common gender.

The last three tables of the Declaration on the Rights of Mankind refer to the principle we are talking about today: peace, solidarity and conscience of race unity:

#### **Table X: Peace**

1. Peace is a primordial principle to preserve civilization and its progress, in thus, a vital interest to mankind.
2. Since peace is grounded on a moral order the peoples will begin replacing the force of arms by the value of peace. War will lose its sense when moral and legal order prevail over any other fictitious order. It is an order based on the consensus of men and peoples for the achievements of the ends common to mankind.
3. Peace is the harmonious coexistence of men grounded on concord and founded upon legal and moral order. It presupposes respect for differences, cultural and social integration resulting from cooperation and a fluent communication. It is only possible when spontaneously desired and its necessity acknowledge by the common feeling of men and peoples.

4. Mankind favors anything that brings its peoples together, rejecting what draws them apart and setting aside the persistence in error in the route paved by the legal concept of mankind, which was adopted by acclamation by the United Nations Assembly in 1966 and incorporated as fundamental principle in the 1967 Space Treaty, of universal force today.

#### **Table XI: Solidarity and Integrity**

1. Solidarity is today a universal social duty as well as a need arising from interdependence of peoples and the factual elimination of frontiers originated by the new communications technology. Facts bearing isolated consequences exist no longer. This imposes the duty of international cooperation in all activities, particularly in the field of science and technology, for the better achievement of the common welfare in the framework of integration consolidating, in practice, the legal concept of mankind. Solidarity bonds among the peoples assure the equal dignity and they strengthen in reciprocal cooperation.
2. Violence in any of its forms, has a universal impact and social consequences which always imply a damage to human dignity. Relation based on ethics, law and respect for the human condition must be assured by means of a constant education at all levels.
3. The use of any kind of weapons of mass destruction, of a chemical or bacteriological nature, asphyxiating, toxin or similar gases is a crime of lese humanity, irrespective of the scenario where it is used or the number of victims it produces.

4. Mankind has a right to its own integration, and thus, to itself protection from any kind of crime of lese humanity including genocide and gynacide.

**Table XII: Conscience of race unity**

The human race is one and only. Men constitute a totum which is different from each of their individualities. Unity is strengthen through the common feeling of being necessary elements, in the conscience of the unity of the human race evidenced in the *affectio humanitatis*.<sup>12</sup>

Peace is possible and needs a firm will to achieve it. War, hostilities and all the forms of violence mean to take justice by own hands. If we have to accept war as a legitimate instrument for States, why do we not accept homicide among individuals for revenge or honor reasons? If States take another's goods because they want or need them, why do we not accept a thief? If States do not give good example of what they want to be observed by their citizens, we are faced to a legal paradox .

**Conclusions**

- A. Militarization of space infringes art. IV of the 1967 Outer Space Treaty.
- B. Cultural and scientific living forces should undertake the task of seeking peace from their individual position in society, without waiting nor asking support from governments or other political institutions.
- C. Peace is a universal need , as well as a social and individual duty. The social responsibility of individuals must be recognized in order to achieve peace.
- D. No interest, fear, risk, convenience or otherwise, must allow any person, government, international organizations or else, to infringe legal principles approved and in force.

- E. International relations must be based in good faith and any misbehavior in this sense, must be universally condemned.
- F. A treaty stopping militarization of space must be agreed.
- G. There is no time for doubts, we are very near and capable for self destruction. An attitude of violence denies our condition of good and loyal beings, and our intellectual nature.

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**Footnotes**

- <sup>1</sup> M. de las V. Cocca y Esquivel, personal conversation, 14 September 2002.
- <sup>2</sup> P..M. Sterns and L.I. Tennen, *The militarization of outer space: serving peace or provoking crisis*, Proceedings of the 27<sup>th</sup> International Colloquium on the Law of Outer Space, Lausanne, pub. AIAA,1984, p. 134-145.
- <sup>3</sup> C.Q. Christol, Competition to militariza space should be transferred to cooperation to improve the quality of life, Proceedings of the 29<sup>th</sup> International Colloquium on the Law of Outer Space, Innsbruck, pub. AIAA, 1986, p 11-16.
- <sup>4</sup> L. David, *Space weapons for Earth wars*, Space.com. 15 May 2002, quoting the words of Sally Reide.
- <sup>5</sup> L. David. Op cit. loc. Cit.
- <sup>6</sup> A. M. Saperstein, "*Weaponization*" Vs. "*Militarization*" Of Space.
- <sup>7</sup> L. David. Op cit. loc. Cit
- <sup>8</sup> L. David. Op cit. loc. Cit
- <sup>9</sup> L. David. Op cit. loc. Cit
- <sup>10</sup> A. Lichterman, Z. Mian, M. V. Ramana, J. Scheffran, Western States Legal Foundation, *Beyond Missile Defense*, Briefing Paper, Prepared for the Non-Proliferation Treaty, Preparatory Committee, Meeting 2002, New York. Sponsored by Nuclear Age Peace Foundation and Abolition 2000,
- <sup>11</sup> A. Lichterman, Z. Mian, M. V. Ramana, J. Scheffran, op. cit. loc. Cit.

<sup>12</sup> *The Buenos Aires Declaration on the XII of the Rights of mankind*, X Congress of the Argentine Association of International Law, Desarrollo Progresivo del Derecho Internacional, aportaciones de organizaciones, tribunales y parlamentos Internacionales, Consejo de Estudios Internacionales Avanzados, Buenos Aires 1991, p. 299.