

SPACE LAW AND THE BRAVE BLUE WORLD

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“The human exploration of new worlds may well be important, as inspiration and even, eventually, as something more. But it is not urgent in the same way as understanding and monitoring the Earth system.”
From “Brave blue world”, editorial of *Nature*¹

Introduction

The legal regime of Planet Earth is not part of International Space Law. However, the positions and decisions of States and international organizations on the exploration and use of outer space, including all celestial bodies – except the Earth – are always taken on the basis of considerations, concerns, interests and political objectives which are located just here, on our Planet. To look after the Earth, in fact, is not the specific matter of International Space Law, as its own name indicates. Nevertheless it is one of its most important missions.

Describing space activities, at the beginning of the 70ies, Manfred Lachs pointed out: “Though this new sphere of man’s activity is apparently remote, it is nevertheless closely linked with what happens on our globe. It is from Earth that space objects begin their journey, from here they are controlled. Man’s journey into outer space begins on Earth and on Earth it comes to an end. It also became swiftly apparent that, while phenomena in outer space could be monitored from Earth, terrestrial events could also be monitored, or Earth’s environment influenced, from outer space.”²

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Today we know that this challenge involves nothing less than the high responsibility of protecting this Planet and even its survival. The international community has become increasingly aware of the huge threats to Earth in our days, let alone in the next decades. This was clearly underlined in the recent reports prepared by the United Nations Intergovernmental Panel on Climate Change (UNIPCC)³.

Thanks to such an extensive research carried out by 600 scientists and experts from 40 countries we received from a highly reliable source - precisely on the eve of the 50th anniversary of the Space Age - the alarming information that climate change and the global warming produced by human action have created an extremely dangerous situation for the present and the future of the Earth. Consequently, it is pressing to take all possible measures to fight the effects of the calamities we already are suffering, which tend to intensify more and more in the following decades.

It is an unprecedented stage in human history. All means and instruments should be applied in a most creative manner to ensure a safer future for the “brave blue world” and its people. “The response of law became an urgent necessity”, as Lachs would say. International Space Law is called to play an important role in these decisive worldwide efforts. To define such a role is an emergent task.

“Brave blue world” is the title of an editorial published by the British scientific journal *Nature* in February 2007, after the first report of UNIPCC. It says that “mapping the march of global change and exploring possible futures have an urgency that the study of eternal verities and ancient deserts cannot match”, because “the Moon is not going anywhere; Earth is.” In other words, the Earth is going down.

The title is not a coincidence. There is in it an

obvious reference to “New Brave World”, the well-known novel by Aldous Huxley (1894-1963), first published in 1932. Set in London in 2540, this ironic science-fiction story describes a dark future the mankind, in spite of its fantastic technological advances. “Brave blue world” seems to be an opportune alert to prevent the worse, using space resources and capabilities.

Not by chance, the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), in its 46th session held this year, agreed to invite International Institute of Space Law (IISL) and European Centre of Space Law (ECSL) to organize a symposium on “Legal implications of space applications for global climate change” in the framework of its 47th session, in 2008. Especially important is that this agreement of the Legal Subcommittee was made with the aim of its possible inclusion as a single item on the agenda of its 48th session, in 2009.⁴

The present paper aims at offering some reflections on this challenge, taking into account the obligations and commitments concerning the Earth embodied in the 1967 Outer Space Treaty and in other related agreements and declarations. Particular attention is equally focused on proposals for the improvement of the current *corpus iuris spatialis*, and for the development of new instruments on the fundamental relationship between Earth and outer space.

Perhaps we could call this special field “Space Law for Planet Earth”.

The sources of Space Law for Planet Earth

The main documents here would be:

I) Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, 1963⁵;

II) Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (Outer Space Treaty), 1967⁶;

III) Convention on International Liability for Damage Caused by Space Objects, 1972⁷;

IV) Principles Relating to Remote Sensing of the Earth from Outer Space, 1986⁸;

V) Principles Relevant to the Use of Nuclear Power Sources in Outer Space, 1992⁹;

VI) The United Nations Framework Convention on Climate Change, 1992¹⁰;

VII) The Earth Charter¹¹, 1997-2000;

VIII) The Space Millennium: Vienna Declaration on Space and Human Development,

UNISPACE III, 1999¹²;

IX) The Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters, 2000¹³;

X) The 10 years plan to build the Global Earth Observation System of Systems (GEOSS), created by the intergovernmental Group on Earth Observations (GEO), 2005¹⁴.

Each one of these documents has its own reasons to be included on this list.

Ban on Nuclear Weapons Testing

The Partial Test Ban Treaty (PTBT) of 1963 prohibits nuclear weapons tests “or any other nuclear explosion” in the atmosphere, in outer space, and under water. While not banning tests underground, it does prohibit nuclear explosions in this environment if they cause “radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control” the explosions were conducted. In accepting limitations on testing, the nuclear powers accepted as a common goal “an end to the contamination of man’s environment by radioactive substances.”

In 1988, Mexico, Indonesia, Peru, Sri Lanka, Yugoslavia, and Venezuela presented a proposal to amend the PTBT and to have a special amendment conference to consider this proposal. The proposal was to extend the PTBT prohibitions to all environments, transforming the agreement into a comprehensive test ban. The conference for consideration of the proposed amendment was held in January 1991. The United States strongly opposed to using the PTBT as a vehicle for negotiating a Comprehensive Nuclear-Test-Ban Treaty (CTBT), made it clear to all participants that it would block any attempt to amend the PTBT by consensus.¹⁵

In spite of this, negotiations for a CTBT began in 1993, with strong support from the UN General Assembly. Intensive efforts were made over the next three years to draft the Treaty text and its two annexes, culminating in the adoption of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) on September 10, 1996, by the United Nations General Assembly in New York. The CTBT, which prohibits all nuclear test explosions, was opened for signature in New York on September 24, 1996, when it was signed by 71 States, including five nuclear-weapon States (United States, China, France, Russian Federation

and United Kingdom).¹⁶ India, Pakistan and North Korea did not sign. India and Pakistan conducted back-to-back nuclear tests in 1998, while North Korea tested a nuclear device in 2006. Article XIV of the CTBT requires ratification by 44 named states, before the Treaty can enter into force. Of these 44 states, three of them – India, Pakistan, and North Korea – have not signed the Treaty. Further seven States – China, Colombia, Egypt, Indonesia, Iran, Israel, and the United States – have signed but not ratified the Treaty. It is considered possible that some countries may resume nuclear test explosions in future.¹⁷

Meanwhile, a comprehensive nuclear test ban, in Earth as in outer space, is rightly regarded as *conditio sine qua non* for the effective security and protection of our Planet.

Outer Space Treaty

Some principles of this treaty operate as suborbital flights: they go up and return to Earth. They aim at outer space, but have their eyes on the Earth.

Article I of the Outer Space Treaty, for instance, simply says: “The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.” And its Article III establishes that the space activities shall be carried out “in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding.” In both cases the objective is to benefit all countries, all humankind, assuring peace, security, co-operation and understanding in our Planet.

Its Article IV, in turn, prohibits to place “in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.” Here, the central idea is not only to prevent the space pollution, but above all to protect the Earth and its inhabitants from a catastrophe of incalculable consequences – maybe hundreds times worse than those of Hiroshima and Nagasaki.

The same Article IV, in paragraph 2, fully demilitarizes the Moon, Mars and other celestial

bodies, to be used only for peaceful purposes: “The Moon and other celestial bodies shall be used (...) exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden.” It means a relief for the Moon and Mars, our first settlements planned out of the Earth. Contrary to what happened in our planet, they could have a history without wars. As far as can be predicted we are going to land again on the Moon within 30-40 years, this time to live and work thereupon. And, should the current the law still be in force, we should arrive there carrying no guns – a real novelty in the history of our civilization.

Moreover, Article IX provides that the studies of outer space and celestial bodies, as well as their exploration should try to “avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter.” If necessary, appropriate measures for this purpose must be taken. The objective, therefore, is to prevent the contamination not only of outer space and celestial bodies, but also of the Earth.

In our time, however, these provisions are not sufficient anymore. They need to be updated, in order to become more effective before the complex Earth environmental problems the future may bring.

In this context, Space Law becomes indispensable to play a proactive and a preventive action, as never before.

As Edith Brown Weiss writes, today “it is crucial to develop international normative arrangements to prevent harms, rather than try to compensate for it later. International law has been moving in the direction of developing preventive norms.”¹⁸ In fact, this compensation could become unviable.

Liability Convention

As a victim-oriented, this convention provides, in its Article II, an absolute liability to compensate damages caused by a space object on the surface of the Earth or to an aircraft flight. This provision would certainly be fairer if the definition of the term “damage”, in Article I (a), included damage to Earth environment, besides “loss of life, personal injury or other impairment of health, loss of or damage to property of States or of persons, natural or juridical, or property of international

intergovernmental organizations.” The need of an enlarged definition was demonstrated by the accident with Cosmos 954, a Soviet nuclear-powered surveillance satellite. It crashed on January 24, 1978, in the Northwest Territories, Canada, spreading its radioactive fuel on a 600-kilometre path. The search for radioactive material covered 124,000 km² (48,000 square miles). The Protocol signed by Soviet Union and Canada on April 2, 1981, to “full and final settlement” of the case, does not mention the Liability Convention, because it lacks the reference to environment damage.¹⁹

Remote sensing of the Earth

Remote sensing activities from outer space are essential for Earth protection. However, the 1986 Remote Sensing Principles must be updated, developed and strengthened to face up to the dramatic demands of our time.

Principle V, for instance, provides that “States carrying out remote sensing activities shall promote international co-operation in these activities. To this end, they shall make available to other States opportunities for participation therein. Such participation shall be based in each case on equitable and mutually acceptable terms.”

These terms and this approach come from a time when international cooperation was a mere possibility and an opportunity, not an imperative as today. Remote sensing activities became essential to any international mobilization to face the planetary crisis. So it is essential to create a multilateral and comprehensive program of cooperation not only to stimulate, but also to equip as many as possible countries with remote sensing capabilities. It is a question of global security.

Principle X provides rightly that “remote sensing shall promote the protection of the Earth’s natural environment.” However, the next sentence – “to this end, States participating in remote sensing activities that have identified information in their possession that can be used to avert any phenomenon harmful to the Earth’s natural environment shall disclose such information to States concerned” – is too modest and narrow to meet the claims of our days.

The same can be said about the Principle XI, which appropriately establishes that the “remote sensing shall promote the protection of mankind from natural disasters.” The problem is the restrict character of the next sentence – “To this end,

States participating in remote sensing activities that have identified processed data and analyzed information in their possession that may be useful to States affected by natural disasters, or likely to be affected by impending natural disasters, shall transmit such data and information to States concerned as promptly as possible.”

As to Principle XII on the access of sensed States to remote sensing primary, processed, and available analyzed data, it is quite positive that this access have to be opened “as soon as the data are produced.” The question here is to clarify the concept of “access on a non-discriminatory basis and on reasonable cost terms”, which can be an impediment to the effective and quick utilization of the remote sensing data

To be realistic, the present Earth situation requires a collective, permanently coordinated and renewed plan of actions to study, foresee, prevent, avoid, reduce and minimize, as rapidly as possible – in really global scale – all the possible chains of harm phenomena and natural catastrophes.

The use of nuclear power sources (NPS) in outer space

The guidelines and criteria – established by Principles Relevant to the Use of Nuclear Power Sources in Outer Space, of 1992 – for safe use of these sources are correct: “States (...) shall endeavour to protect individuals, populations and the biosphere against radiological hazards. The design and use of space objects with nuclear power sources on board shall ensure, with a high degree of reliability that, in foreseeable operational or accidental circumstances, hazards are kept below acceptable levels.” The goals for radiation protection were based on the recommendation of the International Commission on Radiological Protection.

The review and possible revision of the Principles Relevant to the Use of NPS in Outer Space is under consideration of the COPUOS Legal Subcommittee, taking into account the concerns of all countries, in particular of developing countries. The COPUOS Scientific and Technical Subcommittee is also studying the objectives, scope and powers of an international, technically based framework of goals and recommendations for the safety of NPS applications in outer space. This Subcommittee had endorsed a new three-year work plan for its Working Group on the Use of NPS in Outer Space for the period 2007-

2010. This Subcommittee agreed with the International Atomic Energy Agency (IAEA) to set up a joint group of experts in order to prepare and publish the safety framework for NPS applications in outer space by 2010.

It is evident that a legal framework on the use of nuclear power sources in outer space should be in accordance with the principles of peaceful use of outer space, preserving the interests of all States and, of course, strengthening the Planet's security.

Convention on Climate Change, 1992

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty adopted at the United Nations Conference on Environment and Development (UNCED), the Earth Summit, held in Rio de Janeiro, Brazil, in 1992. It was opened for signature on May 9, 1992, and entered into force on March 21, 1994. Its stated objective is "to achieve stabilization of greenhouse gas concentrations in the atmosphere at a low enough level to prevent dangerous anthropogenic interference with the climate system." The treaty is aimed at reducing emissions of greenhouse gas in order to combat global warming. It is considered legally non-binding as it set no mandatory limits on greenhouse gas emissions for individual nations and contained no enforcement provisions. However, it has provisions for possible updates (called "protocols") that may set mandatory emission limits. The principal update is the 1997 Kyoto Protocol, which to date has been ratified by 175 countries, among which there the United States and China are not included.

The UNFCCC may be seen as a source of the Space Law for Planet Earth by several reasons, *inter alia*,

1) It affirms that "the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions";

2) It establishes in its Article 4 two important commitments:

"(g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to

reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;

(h) Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies."

To be true, this kind of required cooperation "in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system" necessarily implies an intensive collaboration in space activities related to the protection of the Earth.

The Earth Charter

This document is defined as "a widely recognized, global consensus statement on ethics and values for a sustainable future. Developed over a period of ten years, in what has been called the most extensive global consultation process ever associated with an international declaration, the Earth Charter has been formally endorsed by over 2,500 organizations, including global institutions such as UNESCO and the World Conservation Union (IUCN)."

A draft UN Earth Charter was developed for the Earth Summit in Rio de Janeiro in 1992, but was not adopted by this conference. In 1994, the Secretary-General of the Rio Summit, Maurice Strong, and the former President of the Soviet Union, Mikhail Gorbachev, working through their organizations (Earth Council and Green Cross International respectively), restarted the Earth Charter as a civil society initiative, with initial facilitation and support from the government of the Netherlands. In 1997, they convened a formal, high-level, and independent Earth Charter Commission, integrated by twenty-five world recognized leaders. After a large process of consultation (over 5,000 people, the commission came to consensus on the Earth Charter in March, 2000, at a meeting held at UNESCO headquarters in Paris. The Earth Charter was formally launched later that year, in ceremonies at The Peace Palace in The Hague, Netherlands.

From 2007, national governments began to make even stronger and more formal commitments to the Earth Charter. The Brazilian Ministry of Environment entered into a formal agreement

(with the Earth Charter International Secretariat and a Brazilian human rights NGO) to promote the Earth Charter to every sector of Brazilian society, as well as internationally. Two ministries of the Mexican government made public commitments to the Charter in the context of a Presidential celebration of Earth Day. Other states and city governments began, or strengthened, similar processes of making formal public commitments to implement the charter in major policies and programs, including the State of Queensland, Australia, the Republic of Tatarstan in the Russian Federation, and cities like Oslo (Norway), Munich (Germany), and Calgary (Canada). The Earth Charter became a reference for the development of policy, legislation, and international standards and agreements.²⁰

According to the Earth Charter, “we stand at a critical moment in Earth’s history” and “the choice is ours: form a global partnership to care for Earth and one another or risk the destruction of ourselves and the diversity of life.” It recommends us to “ensure that the use of orbital and outer space supports environmental protection and peace” as a needed action to “promote a culture of tolerance, non violence, and peace”.

Vienna Declaration on Space and Human Development

“The Space Millennium: Vienna Declaration on Space and Human Development” was approved by the States participating in the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), held in Vienna, Austria, from 19 to 30 July 1999.

For protecting Earth and managing its resources, the Declaration recommends the following actions as “the nucleus of a strategy to address global challenges in the future”:

- “To develop a comprehensive, worldwide, environmental monitoring strategy for long term global observations by building on existing space and ground capabilities, through the coordination of the activities of various entities and organizations involved in such efforts;

- To improve the management of the Earth’s natural resources by increasing and facilitating the research and operational use of remote sensing data, enhancing the coordination of remote sensing systems and increasing access to, and the affordability of, imagery;

- To develop and implement the Integrated Global Observing Strategy so as to enable access

to and the use of space-based and other Earth observation data;

- To enhance weather and climate forecasting by expanding international cooperation in the field of meteorological satellite applications;

- To ensure, to the extent possible, that all space activities, in particular those which may have harmful effects on the local and global environment, are carried out in a manner that limits such effects and to take appropriate measures to achieve that objective.”

Space Charter and Major Disasters

Following the UNISPACE III recommendations, the European Space Agency (ESA), the French National Centre of Space Studies (CNES), and the Canadian Space Agency (CSA) initiated the International “Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters”. It was signed on October 20, 2000, and became operational on November 1, the same year.

Currently, 14 Space Agencies are members of the Charter, with their space resources: European Space Agency (ESA) – ERS, Envisat; Centre national d’études spatiales (CNES) – Spot; Canadian Space Agency (CSA) – Radarsat; Indian Space Research Organization (ISRO) – IRS; National Oceanic and Atmospheric Administration (NOAA) – Poes, Goes; Argentina’s Comisión Nacional de Actividades Espaciales (CONAE) – Sac-C; Japan Aerospace Exploration Agency (JAXA) – Alos; United States Geological Survey (USGS) – Landsat; DMC International Imaging (DMC); Centre National des Techniques Spatiales (Algeria) – Alsat-1; National Space Research and Development (Nigeria) – NigeriaSat; Tübitak-Bilten (Turkey) – Bilsat-1; BNSC and Surrey Satellite Technology Limited (UK) – UK-DMC; China National Space Administration (CNSA) – FY, SJ, ZY satellite series.

The Charter aims at providing a unified system of space data acquisition and delivery to those affected by natural or man-made disasters through Authorized Users. Each member agency has committed resources to support the provisions of the Charter and thus is helping to mitigate the effects of disasters on human life and property.

An Authorized User can now call a single number to request the mobilization of the space and associated ground resources of the member

agencies to obtain data and information on a disaster occurrence.

A 24-hour on-duty operator receives the call, checks the identity of the requestor and verifies that the User Request form sent by the Authorized User is correctly filled out. The operator passes the information to an Emergency On-Call Officer who analyzes the request and the scope of the disaster with the Authorized User, and prepares an archive and acquisition plan using available space resources. Data acquisition and delivery takes place on an emergency basis, and a Project Manager, who is qualified in data ordering, handling and application, assists the user throughout the process.

In 2004, the United Nations Office for Outer Space Affairs (UNOOSA) became a cooperating body to promote the charter and involve various agencies responding to natural disasters and emergencies.

By August 2007, the charter has been activated 141 times to assist on emergencies like floods, fires, landslides, typhoons, volcanic eruptions, oil spills, tsunamis and earthquakes occurring the world over. With a low response time of 38 to 48 hours and high reliability data, the charter seems to confirm the effectiveness of space information for emergency management. The charter provided valuable data during the Hurricane Katrina activation, where levees were breached and floodwaters submerged a part of New Orleans, USA, on August 29, 2005. When the tsunami struck countries across South Asia and Southeast Asia, on December 26, 2004, charter member countries swung into action to release about 200 sensor images from their satellites.

The charter mechanism will no doubt be more effective when more countries acquire the adequate national infrastructure and well formed specialists to receive, process, analyze, enrich and use different kinds of satellite data in the territories under their jurisdiction.

GEO and GEOSS

The Group on Earth Observation (GEO) was formally founded at the Third Earth Observation Summit in February 2005 to carry out the Global Earth Observation System of Systems (GEOSS) 10-Year Implementation Plan.

This plan is based on the idea that “understanding the Earth system—its weather, climate, oceans, atmosphere, water, land, geodynamics, natural resources, ecosystems, and natural and human-

induced hazards—is crucial to enhancing human health, safety and welfare, alleviating human suffering including poverty, protecting the global environment, reducing disaster losses, and achieving sustainable development.” And that “observations of the Earth system constitute critical input for advancing this understanding.”

GEOSS is conceived to work with and build upon existing national, regional, and international systems to provide comprehensive, coordinated Earth observations from thousands of instruments worldwide, transforming the data they collect into vital information for society. The objective is to yield a broad range of societal benefits, including: reducing loss of life and property from natural and human-induced disasters; understanding environmental factors affecting human health and well-being; improving management of energy resources; understanding, assessing, predicting, mitigating, and adapting to climate variability and change; improving water resource management through better understanding of the water cycle; improving weather information, forecasting and warning; improving the management and protection of terrestrial, coastal and marine ecosystems; supporting sustainable agriculture and combating desertification; understanding, monitoring and conserving biodiversity.

Disaster-induced losses can be reduced through observations relating to hazards such as: wild land fires, volcanic eruptions, earthquakes, tsunamis, subsidence, landslides, avalanches, ice, floods, extreme weather, and pollution events.

GEOSS is thought to bring a more timely dissemination of information through better coordinated systems for monitoring, predicting, risk assessment, early warning, mitigating, and responding to hazards at local, national, regional, and global levels.

This system may be considered as a step toward addressing the challenges articulated by the United Nations Millennium Declaration and the 2002 World Summit on Sustainable Development, including the achievement of the Millennium Development Goals. GEOSS is also important to further the implementation of international environmental treaty obligations.

GEO is established on a voluntary and legally non-binding basis, with voluntary contributions to support activities. It meets in plenary at least annually at the senior-official level, and periodically at the Ministerial level. Its decisions are taken by consensus of its Members. The GEO Secretariat is located in Geneva.²¹

Earth protection and common security system

All these documents should be brought together under the general name of "Space Law for Planet Earth". This course of action may be seen as a valuable advance towards the creation of a true Earth protection and common security space system in a not so distant future.

In fact, we already feel the need of such a comprehensive system which could be built gradually in so far as we achieve global political maturity and a world-wide public awareness of these issues.

In this sense, the Space Law for Planet Earth should be improved in at least six directions:

1) To enlarge, detail and strengthen the existing agreements, principles, rules and recommendations related to the Earth protection and security by means of space technologies;

2) To stimulate and help all countries – or at least the majority of them – to build and maintain a competent infrastructure to receive, process, analyze, enrich and use different kinds of satellite data in national programs of sustainable development, as well as preventive and emergency plan of actions to face all natural disasters eventualities and assist other countries, if necessary;

3) To regulate the issue of space debris, in order to minimize and prevent damages to outer space and Earth environment, avoiding orbital disasters that could cause incalculable harms to the life in this Planet. A valuable reference here could be the "International Instrument on the Protection of the Environment from Damage caused by Space Debris"²², adopted by the 66th Conference of the International Law Association (ILA), held in Buenos Aires, Argentine, on

August 1994.

4) To discuss the creation of a multilateral agreement and an International Organization for Common Security in Outer Space²³, with the mission to prevent the weaponization of outer space and military conflicts in this environment, as such an action would be likely to entail dire consequences to the Earth;

5) To study the viability and usefulness of building a space traffic management regime as a "set of technical and regulatory provisions for promoting safe access into outer space, operations in outer space and return from outer space to Earth free from physical or radio-frequency interference", as proposed by the International Academy of Astronautics (IAA). Considering the growing intensification of space activities, it is possible to identify certain urgency and expect invaluable benefits from this project, including economic ones.²⁴

6) To deepen studies and proposals on the creation of a global system to protect our Planet and its inhabitants from near-Earth objects (NEOs). According to the conclusions of the Planetary Defense Conference: Protecting Earth from Asteroids, held in California, USA, in 2004, "the future impacts by comets and asteroids are certainty" and "such impacts could have severe consequences – even ending civilization and humanity's existence."²⁵

As William E. Burrows rightly noted, "using space to protect civilization, providing an environment in which it is able to collectively thrive and grow to its limitless potential, will transform humankind from its traditional role as the hapless victim of fate to one better able to control its destiny and fulfil its inherent, and perhaps unique, potential for greatness."²⁶

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