

ARE THE PRINCIPLES ON THE USE OF NUCLEAR POWER SOURCES IN OUTER SPACE A PROGRESS IN SPACE LAW?

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Abstract

The Document affords content to a Law lap. It recognizes to science and technology a place in the international regulation of legal facts and acts. New legal issues are presented with prudence by declaring the need of revision of the new principles to guaranteeing legal security.

Furthermore, it offers aspects to be criticized: an imprecise redaction, sometimes timid, what is unacceptable in a legal principles' text. It transfers to technology legal situations proper of the jurist, who is by own nature author of any legal principle, is in charge of its application, its due observance. In spite of founding the principle in ethics, it is based on technology, and technology lacking of moral fundament is not a good legal principles mate.

In order to integrate legal principles to the Corpus Iuris Spatialis, it is advisable that, without delay, some of the principles should be reformulated and new principles be added towards a binding instrument, as it happened with Resolution 1962 (XVIII) and the Space Treaty through a complementary protocol. Otherwise, the question made in

COPUOS on 1965 shall be formulated again: Who fears law?

Introduction

After 13 years of negotiations, the General Assembly at its Forty-Seventh Session, 85 Plenary Meeting, had adopted the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, by Resolution 47/68, of 14 December 1992. The Principles have been adopted without a vote.

The observed process was the method adopted since the first times by the Legal Subcommittee of the COPUOS, that is to say, by consensus.

With exception of the first paragraph of the Preamble, the Resolution reproduces the set of draft principles recommended to the General Assembly for its approval. The document before the General Assembly is quoted as A/47/610; 30 November 1992, from the Report of the Special Political Committee.

The same day, the General Assembly adopted the Resolution 47/67 where it can be read: "Noting with satisfaction that the Committee on the Peaceful Uses of Outer Space, on the basis of the deliberations of its two sub-committees, had endorsed the text of the draft principles relevant to the use of nuclear power sources in outer space." ¹

Paragraph 4 of Resolution 47/67 endorses the recommendations of the Committee that

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the Legal Sub-committee at its 32nd. session... should consider the question of an early review and possible revision of the principles relevant to the use of nuclear power sources in outer space.

Paragraph 8, endorses the recommendations of the Committee that the Scientific and Technical Sub-committee, at its 30th session should consider the following items on a priority basis: iv) use of nuclear power sources in outer space.

1. Nature of legal principles.

Principle is a fundamental truth, law, doctrine, or motivating force, upon which other are based. Principle is also an essential element, specially one that produces a specific effect. In law, the principle is prior, accompanies or follows the legal provision and, if said provision lacks, it replaces it. Traditionally principles arose from doctrine contained in the Roman codes, in old laws and in the judgement of the supreme courts. For the positivists, principles are a subsidiary source of the law in force. For others, law derives from tradition and the wisdom of jurists, or the prudence of judges, and not from the law, because its process of elaboration is fundamentally political.

Article 38 of the Statute of the International Court of Justice, states that the Court, whose function is to decide in accordance with international law, such disputes as are submitted to it, shall apply: "...c. the general principle of law recognized by civilized nations" By other hand, judicial decisions and the teachings of

the most highly qualified publicists of the various nations, are a subsidiary means in accordance to art. 59.

Consequently, the principles to be applied to nuclear power sources aproved by consensus, are not a subsidiary means according to the Statute of the Court, art. 38, d. By the contrary, principles adopted by the General Assembly of the United Nations have the hierarchy of principles of law, in accordance with art. 38, c.

Unwritten laws known as jus naturale, meant "the sum of those principles which ought to govern the conduct of man as a rational social being". This is an underlying principle frequently forming the basis for legislative and judicial actions, and the measuring stick of the common law jury: the reasonable man. ²

The use of nuclear power sources should observe as a main principle that established in the Corpus Hispanorum de Pace, five centuries ago, when a new international law was born altogether with the New World: "By natural law and the law of nations, all the goods of the Earth exist principally for the common good of humanity, to which end the natural resources of every nation shall also serve". ³

The principles aproved by Resolution 47/68 of the UNGA, cannot be considered in their present text, and from a juridical point of view, legal principles.

2. Guidelines, criteria, concepts.

A legal guideline is a standard or principle by which to make a judgement or determine a policy or course of action. A legal criterium is related to judge: a standard of judging; any established law, rule, principle, or fact by which a correct judgement may be formed. A legal concept is an elementary idea, a thought, a general notion from which the principle is elaborated.

Principle 3 is entitled "guidelines and criteria for safe use", here is precisely where law lacks more evidently. By other hand, the established guidelines and criteria are eminently technical, thus contingent and intrinsecally subject to mutation.

3. Stability of the legal provision.

In nowadays, when the use of nuclear energy in space with bellic purposes has been overcome, a better opportunity to think prudently of stable legal principles, not only through a Resolution of the UNGA but also by a binding international instrument, is offered.

The first aspect to bear in mind is that the pacific use of nuclear energy in space is always contaminating and hazardous.

When for the first time I exposed the use of nuclear energy in outer space, I took into account the damages that its pacific uses may generate. This occurred in the IVth session (September-October 1965) of the Legal Sub-committee of COPUOS.⁴

In 1980 I summarized in ten points the permanent and reiterated criticism in connection with nuclear energy: environmental damage, genetic danger, risk of nuclear explosion, radioactive material, plutonium and its greater risk of explosion, disposal of waste, debris on Earth, thermic contamination, nuclear energy is not economical and it is a constant poisoning danger for the human race.⁵

In the Lausanne Colloquium (1984), I remembered these arguments against the use of nuclear energy, and added that from everything done until then, the problem has been envisaged with regard to the consequences rather than the causes, and I asked all talent of scientists and jurists so far devoted to diminish the consequences of an avoidable evil, should be oriented in other direction of nuclear energy by any other particularly by solar energy that will turn out to be less expensive, safer, no contaminative and inexhaustible. The Space Shuttle Discovery has begin an experiment for the intensive utilization of solar energy. This would be a solution for law, human society and the security of mankind.⁶

In the Ottawa Conference of 1988 I said that if we want peace, we need to preserve outer space from nuclear energy. This preservation is much more than demilitarization or denuclearization. It is a positive act to preserve nature, to make a rational use of it. Space is undoubtedly a new habitat for present and future generations, and nuclear activities should be vanished therefrom.⁷

The Galileo mission to Jupiter, powered by plutonium-fueled radioisotope thermoelectric generators (RTGs), gave the opportunity to 75 peace institutions, linked through the Florida Coalition for Peace and Justice, to sue President George Herbert Walter Bush, et al in view of the potential risk for environment and human health for the load of 48 pounds of plutonium aboard. The applicants founded the claim on art. IX of the Outer Space Treaty and art. 7 of the Moon Agreement.⁸

4. Law and technology

In the text of the Resolution 47/68, the technical or economic considerations replace the legal ones.

In the Preamble it is recognized that for some missions in outer space, nuclear power sources are particularly suited or even essential owing to their compactness, long life and other attributes. It is also recognized that its use should focus on those applications which take advantage of the particular properties of nuclear power sources. Really, everything indicates that this is, at the present, the best technology applicable to these missions, but the possibility of improving this technology always exists.

Principle 2 uses the term "launching state" and "state launching" in the sense of the state which exercises jurisdiction and control over a space object with nuclear power sources on board at a giving point in time relevant to the principle concerned. For the purpose of principle 9 (liability and compensation),

the definition of the term launching state, as contained in that principle is applicable.

The provision of this principle 2 faced to principle 9, perhaps is at least confusing, and the limitation of previous definitions of launching states in the Liability Convention (art. I) and in the Registration Convention (art. I) is not appropriated. It is not proper to insert two different meaning of a concept within a single legal text.

Principle 3 (Guidelines and criteria for safe use) is the one that has received more objections. Its extension, terms and circumstantial connotations, are proper of a technical regulation and not of legal guidelines. It seems a resignation of law in the benefit of technology which could not solve its own difficulties and therefore decides to put law under its subordination, has occurred.

It is unacceptable that the peoples of the United Nations give licences to damage, even though this damages should be produced during far interplanetary missions, or in sufficiently high orbits, as well as in a limited geographical region and to individuals to the principal limit of 1 mSv in a year. The damages to Humanity are irrespective of the scenario where they are produced or the number of victims they provoke.

Jonathan F. Galloway disagreed over quantitative or probabilistic limits on radiation dosages. He emphasized that the matter is still on the agenda of COPUOS. At this

regard, Galloway said: "The work of COPUOS on NPS gives us reason to be optimistic about the continuing processes of developing international environmental space law".⁹

Principles 4, 5 and 6 offer more juridical content, particularly the use of the verb shall. Principle 7 is acceptable. Principle 8 entitled Responsibility, and Principle 9 -Liability and Compensation- are in accordance of the Space Treaty and the Liability Convention. Paragraph 3 was added in Principle 9: Compensation shall include reimbursement of the duly substantiated expenses for search, recovery and clean-up operations, including assistance received from third parties. Principle 10 is proper of texts elaborated within the United Nations.

The signification of Principle 11 merits a separate comment.

5. Review and Revision

Principle 11 is imperative: These Principles shall be reopened for revision by the Committee on the Peaceful Uses of Outer Space no later than two years after their adoption.

The purpose of this document is to minimize dangers, not to prevent them.

Both the United States and Russia have sent several nuclear reactors to outer space and did not show any intention to stop these missions.

By the contrary, projects on the use of nuclear power in outer space are multiplied. What superior interest can be opposed

to this career on environmental contamination and great risk for the Earth from the launching, collision with aircrafts or other space objects, re-entry to the atmosphere and debris? It is convenient to remember that the 15% of all nuclear powered spacecrafts have suffered accidents, launch aborts or other failures.

There exist initiatives to outlaw Nuclear Power Sources in outer space. Such initiatives - it was said- are not desirable because they would effectively foreclose the opportunity to use advanced nuclear technology to explore the universe.¹⁰

The explorations of the universe is a legitimate purpose for Humankind. But, why so accelerate? Why do not wait the expected development of the technology concerning power sources?

It was agreed that the Principles shall be reopened for revision. This agreement to begin reconsideration of the principles right away was largely in response to a United States request in 1991 to change Principle 3, containing technical criteria for safe use of NPS, after it had been agreed upon in draft form. The United States has proposed that the international principles, like the NPS safety criteria used in the United States should be based on minimizing the probability of radiological exposure of the public or the environment to as low as reasonably achievable rather than establishing specific criteria that might exclude useful activities of very low risk. Other delegations had insisted that after 13 years of negotiation it was important to

adopt a set of principles quickly on the basis of the agreed draft texts, even if imperfect, with the understanding that consideration of proposed revisions could begin immediately. The United States ultimately agreed upon to the adoption of the Principles by consensus on that basis. In the meeting of the Subcommittee an active discussion of the principle 3 by the United Kingdom, France, Germany, Canada and other. Finally, the Subcommittee agreed to continue discussions on the issue next year.¹¹

The Working Group on the Use of Nuclear Power of the Scientific and Technical Subcommittee held its 10th session from 22 to 25 February 1993, in five meetings. The Working Group noting that space application using nuclear power in space were continuing to develop, that international recommendations on radiological protection were continuing to evolve and that the adopted principles were limited in scope, the Working Group agreed that it was useful to consider how they might be revised. None the less, the Working Group noted that the principles had been adopted by the General Assembly and would remain in their current form until such time as they were amended. The Working Group considered that an incremental approach to revising the Principles should be considered. Working papers submitted by UK, the Russian Federation and Pakistan were considered as a useful starting-point for discussions on possible revision on the Principles. The Working Group considered a number of questions relating to possible ways of revising the Principles

including a further definition of terms, and the application of the relevant recommendations of the International Atomic Energy Agency (IAEA) and the International Commission on Radiological Protection (ICRP).¹²

On its turn, the Legal Subcommittee held its thirty second session from 22 March to 8 April 1993.

The first item of its agenda was the Question of Early Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.

The chairman drew attention to the fact that the General Assembly, on its Resolution 47/67, had decided that the Subcommittee, taking into account the concerns of all countries, should consider, through its working group, the question of early review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.¹³

6. Corpus Iuris Spatialis and Soft Law

With the entering into force of the Moon Agreement, the process of elaboration of the Corpus Iuris Spatialis, which is characterized by previewing scientific developments and technical facts and by anticipating legal solutions, was paralyzed.

A complete and comprehensive collection of fundamental principles of the Law of Outer Space and Celestial Bodies was conformed up to 1979.

Since 1980, the task of the Legal Sub-committee followed another path, offering what is called soft-law. Through the United Nations General Assembly resolutions a system of principles that cannot derive in an international convention, was adopted. In this way, the progressive development and codification of international law, as an objective of the United Nations, is not achieved. The non-binding texts may be analyzed and criticized so to constitute the basis of future international instruments, as it happened with Declarations and Resolutions of the General Assembly that have been the seed of ulterior international agreements.

The Principles approved by Resolution 47/68 do not afford any substantial contribution to the development of the environmental space law. This is meaningful for the Space Treaty is pioneer in the environmental international law.

Conclusions

1. The original intention to give a legal framework, which moved the elaboration of the Principles Relevant to the Use of Nuclear Power Sources, was progressively diluted along the 13 years of deliberations.
2. The extraordinary task performed by the Scientific and Technical Sub-committee was not assisted by a similar of the Legal Sub-committee.
3. The Resolution approved a technical regulation proper of the International Atomic Energy Agency (IAEA) and

the International Commission on Radiological Protection (ICRP).

4. The text we have may be the basis for an international instrument if the necessary legal basis are afforded.
5. Space exploration shall use the other known non-contaminating energy sources in the performance of programmes so important and wished by mankind, as the human settlement on the Moon and Mars. These programmes surely shall discover new energies from space besides the solar and photovoltaic.
6. There does not exist any legal nor ethical urgency for consciously contaminate.

NOTES

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- 3 Luciano Pereña Vicente, Derechos y Deberes entre Indios y Españoles en el Nuevo Mundo/ The Rights and Obligations of Indians and Spaniards in the New World (CHP 5, 132-133), Salamanca, 1992, p. 22.
- 4 Aldo Armando Cocca, Statements. Doc. A/AC.105/C.2/SR.49 and A/AC.105/29, General Assembly, Committee on the Peaceful Uses of Outer Space, Report of the Legal Sub-committee, 1965.
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- 7 Aldo Armando Cocca, Peace from space: a dynamic and constructive concept in its proper legal framework, Lawyers and the Nuclear Debate, University of Ottawa Press, 1988, p. 210.
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- 11 Ralph Chipman, U.N. Scientific and Technical Subcommittee on Outer Space Holds Annual Meeting in New York, Journal of Space Law, Vol. 21, N° 1, 1993, pages 32-33.
- 12 United Nations General Assembly, Committee on the Peaceful Uses of Outer Space, Report of the Scientific and Technical Sub-committee, A/AC.105/543, 5 March 1993, Annex III, pages 35-36.
- 13 United Nations, General Assembly, Committee on the Peaceful Uses of Outer Space, Report of the Legal Sub-committee of its 32nd session (22 March-8 April 1993) A/AC.105/544, April 1993, p. 4.