

THE DEVELOPMENT OF ARTICLE IX OF THE 1967 SPACE TREATY

by

Professor Dr. Maureen Williams *
University of Buenos Aires

1. Introduction

At the time of the conclusion of the 1967 Space Treaty, or Treaty on General Principles, as it is currently known, a number of fundamental rules to govern activities in these areas were adopted which, thirty years on, continue to be valid. Stemming from these principles, more detailed agreements were subsequently concluded in order to give a more precise legal framework to certain matters which, as a result of advances in science and technology, needed further clarification. Such is the case of the 1968 Astronauts Agreement, the 1972 Liability Convention, the 1974 Registration Convention and the 1979 Moon Agreement, all of which have clarified, respectively, the meaning of articles V, VI and VII, VIII, and II, of the 1967 Space Treaty. In addition to these treaties which now have the hierarchy of positive international law, much effort has been directed to other fields of the

law of outer space which called out for precision. In this respect, mention should be made, inter alia, of the Draft Convention on Manned Space Flight prepared by a team headed by Professors Böckstiegel, Gorove and Vereshchetin and which was thoroughly analysed in 1992 at a Colloquium held in Cologne. Reference should also be made to the ILA Convention on Dispute Settlement (Paris 1984) presently under review by the Space Law Committee of the International Law Association, and to the Buenos Aires International Instrument on Damage caused by Space Debris, adopted in 1994 by the 66th Conference of the said Association. This Instrument, which the Space Law Committee of the ILA keeps under permanent study so as to keep pace with technological developments, was presented to the Legal Subcommittee of COPUOS as well as to the Full Committee by Professor Böckstiegel in 1995 (1), and explained further at the 1995 and 1996 Sessions.

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* **Rapporteur of the Space Law Committee of the International Law Association. The author is grateful to the University of Buenos Aires for the support given for research on this topic.**

2. The background of Article IX of the Space Treaty

Indeed, article IX of the 1967 Treaty, dealing with damage to the environment as a result of space activities, is far from satisfactory nowadays. Suffice it to say that the stage of mere exploration of outer space is definitely over. We are now well within the stage of exploitation. The use of the geostationary orbit for telecommunication satellites is a glaring example in this sense. Consequently, the need to have more precise rules on the matter is clearly manifest. And yet, the topic has not been included on the agenda of the Legal Subcommittee of COPUOS so far.

I have referred to certain legal aspects of this subject in recent years and different occasions, such as the International Colloquium on Environmental Aspects of Activities in Outer Space (Cologne 1988), the IISL Colloquium in Oslo (1995), the 66th Conference of the International Law Association (1994), the Journal of Space Law (Jan. 1995) and the Reports that preceded the adoption of the 1994 ILA Buenos Aires Instrument on Space Debris (Queensland 1990 and Cairo 1992). I would now like to pause on some other issues and developments related to space debris which appear important when considering the development of article IX of the Space Treaty.

De lege ferenda, there is a great deal to be said on this topic. In addition, it is essential to have in mind that a number of rules of international customary law in connection with the protection of the environment have become such over the last thirty years. Furthermore, international cooperation in this field is

no longer viewed as a mere expression of ideals but, rather, as a general obligation and a pre-requisite for carrying out activities in outer space. International cooperation, however, has not yet achieved the status of international customary law but it is certainly moving in that direction.

One of the first landmarks which went a long way in elucidating the question was, no doubt, the Colloquium organised by the University of Cologne in May 1988. This meeting was possibly the first of a truly interdisciplinary character (2). The 63rd Conference of the ILA followed shortly in Warsaw and entrusted the Space Law Committee with the task of elaborating principles and guidelines on debris and pollution resulting from activities in outer space and to start work on a draft convention on the subject (3).

Two months later, in October 1988, a Conference was held in Asunción del Paraguay, organised by the Ibero-American Institute of Air and Space Law, which briefly touched upon the issue during its Space Law Session. This meeting declared, in no uncertain terms, that some kind of obligation ought to be imposed on states and international organisations, when launching a satellite into orbit, to arrange for removal of the satellite once its useful life had ended. The obligation to remove debris is still an outstanding question, rather vague in the context of the outer space treaties in force (4) and which the ILA Instrument, with the idea of starting at a low level of compulsion and then slowly moving up the scale, has left within the area of international cooperation (namely, as "the general obligation to cooperate", as worded in article 3 of this Instrument).

2.1 Unilateral removal of space debris

Some authors have engaged in research and discussion concerning the possibility of unilateral removal of inactive satellites. The majority coincide in the sense that no unilateral action is permissible in accordance with international law. As Perek acutely observes, satellites were considered so valuable at the time of the drafting of the 1967 Space Treaty that, according to article VIII, they had to be returned to the state of registry when found outside the territory of the launching state (5).

This discussion has led to interesting reasoning: for example, Ferrer's position on the "droit de route" or "right to trajectory", a thesis which this Argentine professor has held ever since the IISL Constance Colloquium in 1970, and elaborated further at subsequent international meetings and in his writings (6). According to Ferrer, when a satellite is describing a given route or orbit, and provided the launching and orbit have been duly notified to the UN Secretary-General and other formalities duly observed, the state of registration has a right "erga omnes" to maintain this satellite in its orbit, even when it becomes inactive, for whatever reason. Should another State-Party to the Treaty wish to use the orbital slots occupied by that inactive satellite, by no means can it take the law in its own hands and proceed to its removal. The right procedure, according to Ferrer, would be to hold consultations during which the state demanding the removal of the satellite should prove to the state of registration that that satellite is no longer complying with the principles laid down in the Space Treaty, that is to say, that the activity is not being carried

out for the benefit and in the interest of all countries.

The same principle is, of course, applicable where parts of satellites or particles therefrom (second generation debris) are concerned. The problem is aggravated in that small particles are almost impossible to be detected from the Earth and that in the geostationary orbit they travel at speeds that are likely to cause severe damage in case of collision with active satellites.

Therefore, the outlook today is considerably more dangerous and complex. It thus follows that not only old law should be adjusted but also new law progressively developed. Hence the *raison d'être* of the ILA Instrument and, particularly, of "a general obligation to cooperate", as indicated above. It is not unreasonable to expect that in due course, and with the accelerated growth of space activities, this initial step should lead to the adoption of more stringent measures.

Malanczuk has also tackled the issue of unilateral removal of space debris (7) and concluded, like Ferrer and most of the doctrine today, that such a right does not exist, except with the prior consent of the state of registration or as a result of an international agreement envisaging such action.

To be realistic the establishment of an obligation to remove, in such blunt terms, within the ILA Instrument, would have endangered the support from the international community, a goal which the Instrument has always had as one of its main objectives. It is a true fact that states are reluctant to accept obligations when they are not quite sure what these obligations will ultimately result in. Therefore, the ILA

Space text chose to start at a low level of compulsion, as priorly remarked, by laying down a "general obligation to cooperate" drafted along the lines of Principle 11 of the Declaration of Principles for the Protection of the Environment" (Ottawa, February 1989), and which would cover other situations as well.

2.2. A glance in retrospect

An important precedent to the 1988 Meetings described above was an ILA Regional Seminar held in Buenos Aires in December 1987 where one of the Special Working Groups, chaired by the present writer and where Professor Cocca was Rapporteur, studied the matter and offered its conclusions to the then forthcoming Warsaw Conference (8).

The Buenos Aires Regional Seminar of the ILA concluded that environmental risks arising from space activities may have their effects not only in outer space proper but also on planet Earth itself. Thus, a uniform set of rules should be devised to be applicable both to the Earth and Outer Space environments.

Indeed, this conclusion is consistent with, and was in clear anticipation of, article 1 (d) of the 1994 ILA International Instrument which states that for the purposes of that Instrument "environment" includes both the outer space and earth environments within or beyond national jurisdiction (9).

The Buenos Aires Regional Seminar also recommended that a protocol to the 1967 Space Treaty or some other kind of separate international instrument should be elaborated with a view to giving a more precise meaning

to the general principles on the protection of the environment enshrined in article IX of that Treaty as well as in other agreements in force dealing with environmental risks (10).

These meetings, and other precedents such as the Darmstadt First European Conference on Space Debris (Darmstadt 1993), the Brighton IISL Colloquium (1987) and the 62th Conference of the ILA (Seoul 1986) clearly revealed the need for seriously addressing the problem of space debris and its legal aspects in the light of the new circumstances which the space scientists had explained only too well during the Cologne Colloquium and other meetings. (A Second European Conference took place in Darmstadt in 1997, to which reference will be made later).

2.3 Recent Developments

As a result of the above-described currents of opinion, attention was directed to article IX of the Space Treaty and opinions were initially divided, ranging from those which advocated the need for revising the whole Space Treaty to more moderate stances supporting the view that a separate protocol or instrument should be drafted to supplement, with more detailed and stricter provisions, the call for international cooperation embodied in article IX of the Treaty. And within these two extreme positions a variety of intermediate shades was to be found.

One of the strongest criticisms aimed at Article IX was, in fact, that it did not go beyond international cooperation and that, if mankind was to survive, we could not afford to run further risks. The expression "having reason to believe"

was equally questioned by the doctrine given its highly subjective and discretionary nature: if a state "had reason to believe" that its activity would cause no harm it would have duly complied with its obligations under Article IX of the 1967 Space Treaty. This, in practice, implied a severe risk of causing irreversible damage to the environment.

On the other hand and particularly during the seventies, some writers believed that, because of the very broad interpretation that could be given to the definition of "damage" established in article I (a) of the Liability Convention (i.e. loss of life, personal injury or other impairment of health; or loss of or damage to property of states or of persons, natural or juridical, or property of international intergovernmental organisations), nothing much could be done to improve the legal situation. Should, for example, environmental damage occur during refuelling operations of a spacecraft, this assumption would unquestionably come under the terms of article I of that Convention and thus be subjected to a regime of absolute liability in accordance with that Convention and the 1967 Space Treaty. Yet, almost nobody in those days questioned the advisability of having a better-defined set of rules on this topic.

The ILA Instrument on Space Debris has taken the Liability Convention definition almost literally (article 1 (c)) adding, at the end, the words "or any adverse modification of the environment in areas within or beyond national jurisdiction or control", with the obvious thought of including the global commons. Moreover, in the interest of accuracy, it was considered necessary to have more detailed provisions within

this Instrument such as, for example, those contained in article 3 concerning its scope of application. Thus, the Instrument is applicable to space debris which causes or is likely to cause direct or indirect, instant or delayed damage to the environment, or to persons or objects.

3. The world of today

In the view of Perek, article IX of the 1967 Treaty can hardly be interpreted as applying to space debris which is of terrestrial origin. Rather, this scientist -who is one of the scientific consultants of the ILA Space Law Committee- sees that article as referring to contamination of the environment by extraterrestrial matter. After mentioning the definition of "orbital debris" contained in the IAA Position Paper (11)

Perek concludes that it coincides, in substance, with the one adopted by the Buenos Aires Instrument (12). With his usual clearness, Perek identifies major reasons for having legal rules on space debris. Apart from the fact that they constitute around 95% of all objects in space and represent a hazard to active satellites, they have a legal status of their own, different from that of active spacecraft, and a different terminology should be used as well. As Perek puts it, the term "space object" should not apply to space debris. It is not difficult to conclude that the author in question fully recognises the need for having a separate convention on space debris without having to think of revising the outer space treaties presently in force (13).

The Second European Conference on Space Debris was held in Darmstadt on 17-19 March 1997. Results clearly indicate that one of its essential

objectives had been reached, namely that awareness of this question had increased significantly.

As in the previous Conference (Darmstadt 1993), the meeting was of an interdisciplinary nature. Likewise, there was an interesting contribution from space lawyers. Kopal, for example, strongly supported the idea of having a legal document on space debris. In his opinion, the term "damage" as defined in article I (a) of the Liability Convention, did not include damage caused by space activities to the space environment. Insofar as dispute settlement related to space debris is concerned, Kopal considers that the present rules of international law are much too general and leave many a question unanswered. Kopal strongly supports the idea that the Buenos Aires ILA Instrument should include an obligation to remove "non-functional space objects" from the most saturated areas of outer space (14).

Benkő and Schrogl, for their part, focused on space debris, in the United Nations, addressing aspects of law and policy. These authors hold the view that solutions should be sought on the basis of the existing law, supplemented by comprehensive regulations, and maintaining the existing space treaties intact (15).

Among the scientific experts voicing their thoughts at Darmstadt 1997, the chairman of the Scientific and Legal Subcommittee of COPUOS and Consultant of the ILA Space Law Committee, Dietrich Rex, made very accurate comments on the threat of overcrowding, both as regards tracked space objects and untrackable population even though the risk of collision was still low. However, impacts

on satellites by man-made objects smaller than 1cm were frequent today (16). Interesting are Rex's observations on the way space debris got on to the agenda of the Scientific and Technical Subcommittee, first under the item "other matters" and since 1994 as a separate topic on that agenda.

Following this precedent and having in mind that in 1996 during the 36th Session of the Legal Subcommittee the legal aspects of space debris was listed as a possible item for inclusion on the agenda, and that, among the five topics considered for inclusion, three of them were closely connected to space debris: the above-mentioned (legal aspects), the review of the existing norms of international law applicable to space debris, and the comparative review of the principles of international space law and international environmental law, it is reasonable to expect its addition to the agenda of the Legal Subcommittee in a not too distant future.

All these topics were the object of thorough discussion at the different stages leading to the adoption of the ILA Buenos Aires Instrument, as may be seen in the Conference Reports. And, as remarked by Kopal, "the ILA Buenos Aires International Instrument on the Protection of the Environment from Damage caused by Space Debris offers a good example of how a legal document on the issue of space debris could be drafted"(17).

At the 36th Session of the Legal Subcommittee (March-April 1997) mentioned above it was recommended that further informal consultations on specific proposals for new agenda items should continue in 1998. Shortly after that, in June 1997,

the Chairman of the ILA Space Law Committee -Prof. Böckstiegel-, in his statement to the Committee on the Peaceful Uses of Outer Space (40th Session, Vienna) reiterated his comments on the ILA Buenos Aires Instrument providing the meeting with a progress report on the matter and noting with satisfaction the work on the topic carried out so far by COPUOS. However, he did not fail to notice a certain reluctance on the part of the Legal Subcommittee to take up the subject in spite of the firm position of some delegations to the contrary. After stressing the importance of exchanging information between the two Subcommittees Professor Böckstiegel observed that it was important for the Scientific and Technical Subcommittee to

discuss the possibility of having an international instrument on space debris and, in this sense, the expertise of the Legal Subcommittee would be important (18).

4. Conclusion

When the idea of including space debris on the Legal Subcommittee's agenda finally materialises, the work which led to the adoption of the 1994 ILA International Instrument, enriched with the suggestions and contributions from the experts in the legal and scientific fields, will surely mean a useful and realistic contribution to the elucidation of the legal rules which should govern such a crucial matter.

As indicated by the different stances referred to in this paper, there is almost consensus among lawyers and scientists on the increasing danger of damage to be caused by space debris at the turn of this century. The need to

develop the general principles enshrined in article IX of the 1967 Treaty is therefore fully justified. Hence, every effort tending to encourage a political decision to include the legal aspects of space debris on the agenda of the Legal Subcommittee of COPUOS should be hailed as a step forward for the benefit and in the interest of the international community as a whole.

NOTES

1. See Böckstiegel's statements to the Legal Subcommittee of COPUOS and to the Full Committee in 1995, 1996 and 1997. Also Kopal's presentation to the Legal Subcommittee (March-April 1995).
2. See ENVIRONMENTAL ASPECTS OF ACTIVITIES IN OUTER SPACE, Carl Heymanns Verlag, 1988.
3. See Report of the 63rd Conference of the International Law Association, Warsaw 1988, pp.842-844.
4. See P.Malanczuk, REVIEW OF THE REGULATORY REGIME GOVERNING THE SPACE ENVIRONMENT, published In the Proceedings of the 38th Colloquium on the Law of Outer Space, AIAA, pp.355-382.
5. See L. Perek, OUTER SPACE TREATY IN PERSPECTIVE, 40th Colloquium on the Law, Torino 1997. Manuscript by courtesy of the author.
6. See Ferrer, EL DERECHO A LA TRAYECTORIA, Proceedings of the XIII Colloquium on the Law of Outer Space, Constance 1970, pp. 160-164. Also, same author's book DERECHO ESPACIAL, published by PLUS ULTRA, Buenos Aires 1976.

7. See Malanczuk, *op.cit.* in note 4, at pp. 377-8.

8. See BUENOS AIRES REGIONAL SEMINAR OF THE INTERNATIONAL LAW ASSOCIATION, Buenos Aires 2-4 December 1987, published in a special number of the REVISTA DEL COLEGIO DE ABOGADOS DE LA CIUDAD DE BUENOS AIRES, March 1988, pp. 133-162.

9. See REPORT OF THE 66TH CONFERENCE OF THE INTERNATIONAL LAW ASSOCIATION, Buenos Aires 1994, p. 9 et seq.

10. See *op.cit.* in note 8, p.133.

11. See ACTA ASTRONAUTICA, Vol. 31, p.169, October 1993, quoted by Perek in *op.cit.* in note 5.

12. *Ibid.*, page 2 of manuscript .

13. *ibid.*, p.5

14. See Kopal, PRESENT INTERNATIONAL LAW PRINCIPLES APPLICABLE TO SPACE DEBRIS AND THE NEED FOR THEIR SUPPLEMENT, in Proceedings of the Second European Conference on Space Debris, Darmstadt, 17-19 March 1997.

16. See Benkő and Schrogl, SPACE DEBRIS AND THE UNITED NATIONS: ASPECTS OF LAW AND POLICY, in Proceedings of the Second Conference... etc, Darmstadt, 17-19 March 1997.

17. See Kopal, SPACE DEBRIS: A REVIEW OF THE CURRENT REGULATORY STRUCTURE, in Proceedings of the 39th Colloquium on the Law of Outer Space, AIAA, Beijing

1996, pp. 343-350, at p.349.

18. See Böckstiegel's statement to the 40th Session of the COPUOS, Vienna, June 1997.

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