Liability for Damage Caused by Spacecraft
Proposals of Belgium, U.S.A., Hungary, India and Italy

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I. Introduction

Since the launching of Sputnik I in 1957, the attention of international lawyers has been directed to the problem of liability for damage caused by spacecraft. Sometimes predictions have been made with respect to yet unknown catastrophies. So far, however, only smaller incidents have occurred in which little or no damage has resulted to third parties by spacecraft[1]). It seems that the major potential danger may not be caused by the plunging of a vehicle from its orbit upon the surface, but by the launching itself. Some space vehicles carry huge fuel loads. If the vehicle crashes within 50 or 100 miles of the launching site, as much as 75 % of the fuel load may be unconsumed. This may result in an enormous explosion. An even more serious potential danger appears in the possibility of nuclear propelled spacecraft. This possibility causes special problems with regard to the ceiling of liability and time limits for claims. As a result some States want to exclude the nuclear damage from a proposed convention. This problem will be further discussed at a later point.

II. The Need for a Convention

Most countries felt that in the absence of an international agreement the state of the law would remain uncertain. Diverse legal systems may view the problem differently. One could nevertheless question whether a codifi-

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[1]) Incidents are reported in N. Mateesco Matte, Aerospace Law (London, Toronto 1969), p. 339, and Žukov, Weltraumrecht (Berlin 1968), p. 166.

cation of liability rules would be necessary if there were general rules of international law governing these questions. A brief examination of the present international law is therefore necessary. Furthermore, it is not absolutely certain if in the near future there will be a convention on liability. In the absence of such a convention one will have to go back to the Space Treaty of 1967 and to the general principles of international law[2]).

An examination of the court practice shows the uncertainty and vagueness of general principles of liability in international law.

In the *Corfu Channel* Case[3]), the International Court of Justice concluded that, since Albania knew of the existence of mines in her waters in sufficient time before explosion, she had a duty to notify other States the existence of minefields in her territorial waters and to warn approaching British warships of the imminent danger to which the minefield exposed them. The Court based these obligations on "certain general and well recognized principles, namely: elementary considerations of humanity even more exacting in peace than in war ..." and on "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States".

The Court's emphasis on the fact, that the minefield could not have been layed without the knowledge of the Albanian Government, indicates that the decision was based on fault liability. The decision has been interpreted in this sense by Bin Cheng, who states: ". . . the Court equally held, in effect, that a State cannot be held responsible for all acts occurring in its territory, merely by reason of their occurrence there, in other words it rejected the doctrine of 'absolute risk' or liability"[4]).

Schwarzenberger, however, points out:

> "The actual knowledge postulated by the Court and fault in the meanings of *dolus* or *culpa* are not the same thing. If these notions were identical, a reasonable mistake on the part of the Albanian authorities that the third party which had laid the mines had notified, or would notify, international shipping might have absolved Albania ... Until however, the Court has found on the issue of the relevance of a *bona fide* factual mistake, it remains doubtful whether, even in relation to unlawful omissions, the Court has adopted the *culpa* doctrine"[5]).

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[2]) To the question how far damages caused by spacecraft are covered by the Rome Convention 1952, see Cooper, Liability for Space Damage – The United Nations – The Rome Convention, in: Proceedings of the 8th Colloquium on the Law of Outer Space, 1965.

[3]) I.C.J. Reports 1949, p. 22.

[4]) Bin Cheng, The Law and Procedure of the International Court of Justice: General Principles and Substantive Law, 27 BYIL 1950, p. 20.

[5]) Schwarzenberger, International Law, vol. 1 (London 1957), p. 633. For further interpretations of the *Corfu Channel* Case, see Goldie, Liability for Damage

It is obvious that the decision in the *Corfu Channel* Case can be interpreted differently and does not satisfactorily answer the question of the basis of liability one or the other way.

If other decisions of international tribunals are considered, the picture becomes even more confusing. In the *Trail Smelter* Case the Tribunal ruled that under international law no State has the right to use or permit the use of its territory in such a manner as to cause injury to the territory of another State [6]). It concluded that if any damage occurred, whether through failure on the part of the Smelter to comply with the regulations herein prescribed or notwithstanding the maintenance of the régime an indemnity shall be paid[7]). On the other hand, there are numerous cases where liability was clearly based on fault[8]). Under these circumstances it is not surprising that some authors believe that liability in international law is based on fault, whereas others maintain that absolute liability is a principle of international law[9]).

It can thus be said that there is no unanimity about the content of general principles of international law on liability.

This unsatisfactory state of international law strongly supports the case for a convention on liability for damage caused by spacecraft. The General Assembly Resolution of December 20, 1961 [10]), requested the Committee on Peaceful Uses of Outer Space to study and report on the legal problems arising from the exploration of outer space. The Committee set up in 1962 a legal Sub-Committee which discussed the liability question for the first time in its first session in 1962. The famous Declaration of December 1963, provided in its para. 8:

> "Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies".

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and the Progressive Development of International Law, 14 International and Comparative Law Quarterly 1965, pp. 1230, 1231.

[6]) Reports of International Arbitral Awards, vol. 3, p. 1965.

[7]) *Id.* at p. 1980.

[8]) Cf. Schwarzenberger, *op. cit.* (above note 5), pp. 634 ff.

[9]) Cf. Malik, Liability for Damage Caused by Space Activities, 6 Indian Journal of International Law 1966, pp. 343 ff. with further references; Goldie, *op. cit.* (above note 5), pp. 1226 ff. See also Wengler, Völkerrecht, vol. 1, p. 494 note 1. Wengler states that there is a practice that a State is liable without fault if it has created a danger which causes damage on the territory of another State.

[10]) G.A. res. 1721 (XVI).

These principles were reiterated in Art. VII of the Space Treaty of 1967. Art. VI of the Treaty provides further that when activities are carried on in outer space, including the Moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization.

The provisions of the Space Treaty, however, cannot replace a convention on liability. The wording of Art. VII does not say whether liability is based on fault or absolute liability[11]). Art. VII is the result of a compromise through which all major questions should be deferred to a later convention. The UN General Assembly recognized this in its Resolution 2345 (XXII), calling upon the Committee on the Peaceful Uses of Outer Space to continue with a sense of urgency its work on the elaboration of an agreement on liability. When the Legal Sub-Committee continued the discussion in 1968 and 1969, during its 7th and 8th sessions in Geneva, it had before it five draft agreements by the U.S.A., Hungary, Belgium, Italy and India[12]). The Committee, however, failed to reach an agreement[13]). In the following the major controversial issues arising in the 7th and 8th sessions will be discussed.

III. The Draft Agreements

1. The liable States under the agreement

Art. VII of the Space Treaty provides for liability of States Parties that launch or procure the launching, or from whose territory or facility an object is launched. The U.S. and Hungarian proposals correspond in principle to this provision. A number of States, however, were uncertain whether a State which has simply lent its territory or facility for the launching of an object by another State should bear international responsibility. The French delegate pointed out that an automatic liability of the State which lend its territory or facility would prevent many countries from lending their territories or facilities[14]). Some writers have argued, in addition, that it is not reasonable to impose liability upon a State which merely

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[11]) Mateesco Matte, *op. cit.* (above note 1), p. 345.

[12]) See comparative table of draft agreements: UN Docs. [A/AC. 105/C. 2/W. 2/Rev. 4 and Add. (A/AC. 105/C. 2/Rev. 4/Add. 1) and (A/AC. 105/C. 2/N. 2/Rev. 4/Add. 3)] in A/AC. 105/45, pp. 49 ff.

[13]) See Summary Records of the 90th to 101st meetings, A/AC. 105/C. 2/SR. 90–101; and Summary Records of the 101st to 110th meetings A/AC. 105/C. 2/SR. 102–110; Report of the Legal Sub-Committee on the Work of its Eighth Session to the Committee on the Peaceful Uses of Outer Space, A/AC. 105/58.

[14]) A/AC. 105/C. 2/SR. 95, 97.

provides its launching facilities, especially when the damage occurs because of the fault of the other State exercising control over its spacecraft[15]). The French delegation proposed, therefore, that primary responsibility should rest with the State launching a space object and deriving benefit therefrom and secondary liability should rest with the State from whose territory or with whose facilities a space object was launched. The latter's liability would arise only when the liability of the State which had launched or procured the launching of a space object could not be established, either because the State whose territory or facilities had been used was unable to identify the State to which it had lent its territory or facilities, or because the State launching the space object was not a Party to the convention[16]).

Difficulties arise, however, in cases where States reserve the right to inspect the safety precautions of its launching ramp, participate in the launching or be associated in the project as a whole. The U.K. proposed therefore as a supplement to the French proposal the words "which actively and substantially participates in the launching of a space object"[17]). The U.S. delegate, on the other hand, pointed out that, even if his country merely lent its territory or facilities to another State without participating in the launching at all, it would be liable under Art. VII of the Space Treaty of 1967. The Italian proposal in accordance with the U.S. draft stated explicitly that the State whose territory or facilities were used should be considered a launching State even if it did not actively and substantially participate in the launching or in the control of the transit or descent[18]). Indeed, the vagueness of the term "substantial participation" appears to support this view. The interests of possible victims are better protected if every State involved in carrying out ultra-hazardous activities is liable regardless of the degree of participation. The argument that this cannot be justified if the launching State is faulty, is not convincing in the light of the fact that the principle of absolute liability for damage caused by spacecraft to third persons on the surface has been generally accepted. There is no reason for excluding liability of any State because the damage might have been caused due to fault imputable to that part of the activity which was taken by another[19]). Moreover, a State providing air facilities for another State has always had the opportunity to enter into indemnification agree-

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[15]) McDougal / Lasswell / Vlasic, Law and Public Order in Outer Space (New Haven 1963), p. 614.

[16]) A/AC. 105/C. 2/SR. 95.

[17]) A/AC. 105/C. 2/SR. 97.

[18]) Art. 2, para. 2.

[19]) See Malik, *op. cit.* (above note 9), p. 352.

ments[20]). For example, an international agreement of 1964 between E.L.D.O., Australia and the U.K. provided for indemnification of Australia against any loss or damage suffered and against any liability in respect of claims. The opinions of writers, as the Brussels resolution of the Institute of International Law shows, tend to impose liability upon the State "under whose authority the launching of a space object has been taking place"[21]). This however, does not solve the problem of determining which State is responsible when more than one State is involved in launching a spacecraft. There seems to be agreement that in case of a joint launching (Italian and Belgian proposal)[22]), or launching under a joint program (Indian proposal)[23]), the States shall be jointly and severally liable. The Legal Sub-Committee agreed in its 7th and 8th sessions on the following text:

> "Whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused"[24]).

Here the problem concerning the meaning of a joint launching arises once again. This question cannot simply be answered by reference to the agreed definition of the term launching State:

1. the State, which launches or procures the launching of the space object
2. the State from whose territory or facility the space object was launched[25]).

The definition only brings the State from whose territory or facility a space object was launched into the scope of the convention; it does not resolve the question concerning the elements of a joint launching[26]).

To overcome this difficulty, proposals have been made for compulsory registration and notification of launching of space objects[27]). The General Assembly Resolution 1721 of 1961 calls upon all States launching objects into orbit or beyond to furnish information promptly to the Committee on Peaceful Uses of Outer Space through the Secretary General for purposes of registration of launchings. Accordingly, the Italian draft provides that the space object must be entered in a State's own register "or registered with the U.N. Secretariat (which must in any case be notified beforehand of the launching and be provided with all the information necessary to identify

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[20]) Cf. A/AC. 105/C. 2/ SR. 97.
[21]) See Jenks, Liability for Ultrahazardous Activities, 117 Rec. d. C. 1966 I, p. 149.
[22]) Art. 3, Belgian draft; art. 5, para. 2, Italian draft.
[23]) Art. IV, Indian draft.
[24]) A/AC. 105/58, p. 9.
[25]) A/AC. 105/58, p. 8.
[26]) See discussions in A/AC. 105/C. 2/SR. 95, 104.
[27]) See the French draft convention concerning the registration of objects launched into space, explained by the French delegate in A/AC. 105/C. 2/SR. 101; see also Dembling, Space Law and the United Nations, 32 Journal of Air Law and Commerce 1966, p. 350.

the object in question)"[28]). A compulsory international registration would certainly clarify the situation as to who may be regarded as the responsible State. For military reasons, though, States are reluctant to register internationally all space objects.

Another possible solution to these problems is the "channelling of liability" to the operator, no other person would be held liable. Art. 6 of the O.E.E.C. Convention on Third Party Liability in the Field of Nuclear Energy could serve as a model. This Convention provides that the right of compensation for damage caused by a nuclear incident may be exercised only against an operator of a nuclear installation. A right of recourse exists only if the damage caused results from an act or omission done with intent to cause damage, or if it is provided by contract. This concept of channelling has the great advantage that it would allow concentration of insurance at one point and would therefore avoid an unnecessary division of resources[29]). So long as there is no compulsory international registration, it is difficult to impose liability upon the operator of a spacecraft.

2. Liability of International Organizations

Again the Space Treaty of 1967 may serve as a basis. Art. VI provides that "responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization". This has been recognized by all delegations. No agreement, however, was reached on the relationship between the liability of the organization and the liability of its members. The E.L.D.O.–E.S.R.O. Countries submitted in a joint proposal that initial liability be placed on the organization and subsidiary liability on the member States, if the organization concerned has made a special declaration of its acceptance of the rights and obligations provided for in the agreement and if a majority of the States members of the organization are parties to the agreement[30]). The Soviet Union rejected this proposal because this would impede speedy compensation and would therefore not be in the interests of the victim. Furthermore, the Soviet Union argued, a declaration of acceptance would weaken the agreement and run counter to the provisions of the 1967 Treaty because such provisions might be interpreted to

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[28]) Art. 2, para 1.

[29]) Cf. Malik, *op. cit.* (above note 9), p. 349. Malik criticizes the concept of channelling, because in common undertakings channelling leads to confusion and exonerates the State which provides facilities. Cf. McDougal / Lasswell / Vlasic, *op. cit.* (above note 15), p. 618.

[30]) A/AC. 105/C. 2/L. 41.

enable international organizations to disclaim liability if a majority of their member States were not signatories of the agreement[31]). This attitude is quite surprising considering that the U.S.S.R. agreed in the Rescue of Astronauts Agreement of 1967 to a provision similar to the joint proposal. The Soviet Union reconciled its position with the argument that the Rescue Agreement was a specialized document, humanitarian in purpose, and its provisions failed to meet the needs of the agreement on liability[32]). This view, expressed in the Hungarian proposal, is subject to considerable difficulties. It is hardly explicable how international organizations as subjects of international law can be bound by a convention to which they are not a party. The U.S.S.R. position is that, since the Declaration of 1963 international organizations automatically assume liability even if they have not acceded to the convention. But regardless of how the 1963 Declaration may be interpreted, it only establishes the framework for liability; it cannot replace a convention.

The joint proposal pays due regard to both the interests of possible victims and the interests of the members of an international organization. The international organization will normally provide in its "constitution" for a compensation for damages to third parties. There is no reason why a claimant should be allowed to sue the member States behind the organization. Only if the organization fails to pay compensation should the member States be made responsible. A further difficulty, however, concerns the provision of a right of the claimant to seek compensation from States which are not parties[33]). Frequently not every member State of the international organization will also be a party to the agreement. It would appear unreasonable to give a right to seek compensation only against those States which have acceded to the agreement. The Italian draft provides therefore that all members of the international organization should be liable whether or not they were parties to the agreement[34]). It has been argued that, if the organization accepts the convention, its members are bound to pay compensation for any damage resulting from its activities[35]). However, member States of an organization that are not parties to the convention cannot be bound by the declaration of acceptance by the international organization. It cannot be assumed that member States of an organization have authorized the organization to accede to the convention not only in the name of the

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[31]) A/AC. 105/C. 2/SR. 104.
[32]) A/AC. 105/C. 2/SR. 105.
[33]) Cf. Statement of the Indian delegate, A/AC. 105/C.2/SR. 92.
[34]) Art. 6, para. 3.
[35]) A/AC. 105/C. 2/SR. 91.

international organization but also in the name of each individual member State.

The rights and obligations of the Convention rest therefore only with the organization and those member States that have acceded to the convention.

3. Basis of Liability

There was general consensus that absolute liability should be the basis of responsibility. Many delegates stated that, because of the special dangers involved in space activities and the difficulties of proving negligence, the system of liability without fault must be adopted[36]). This in fact reflects the development of the national legislations in the last 20 years. There is today in all major legal systems a strict or absolute liability for ultra-hazardous activities[37]). On the international level the O.E.E.C. Convention on Third Party Liability in the Field of Nuclear Energy of 1960 and the Brussels Convention on the Liability of Operators for Nuclear Ships provide for absolute liability. The question arises, however, concerning what exonerations from this liability should be allowed. There seems to be some agreement that fault of the injured State exonerates partly or wholly the launching State. The U.S. proposal speaks of wilful or reckless act[38]), the Hungarian draft of wilful act and gross negligence[39]), whereas the Indian and Italian drafts contain no similar provisions. The Hungarian proposal provides additionally for exoneration in case of natural disaster. Nevertheless, in the 7th session the Hungarian delegate declared his willingness to remove from his draft any reference to natural disaster after his proposal had encountered criticism by many States because of the vagueness of the term "natural disaster"[40]). Indeed, an exoneration in case of natural disaster would be contrary to the trend in the field of nuclear energy. Whereas the O.E.E.C. Convention still provides for exoneration from liability if the operator can prove that the nuclear incident was caused by an armed conflict, invasion, civil war, insurrection or a grave natural disaster of an exceptional character, the Brussels Convention of 1962 omits mention of natural disaster.

During the 8th session the Legal Sub-Committee approved the following text formulated by the Working Group:

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[36]) A/AC. 105/C. 2/SR. 91 and *passim.*

[37]) See Malik, *op. cit.* (above note 9), pp. 339 ff.; and Goldie, *op. cit.* (above note 9), pp. 1189 ff.

[38]) Art. II, para. 2.

[39]) Art. III.

[40]) Cf. A/AC. 105/C. 2/ SR. 91.

"Unless otherwise provided in the Convention, exoneration from absolute liability shall be granted to the extent that the respondent establishes that the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of the claimant or of natural or juridical persons it represents. No exoneration whatever shall be granted in cases where the damage results from activities conducted by the respondent which are not in conformity with international law, in particular, the Charter of the United Nations and the Treaty on the principles governing the activities of States in the exploration and use of outer space, including the moon and other celestial bodies" [41]).

It may be noted that the complete exclusion of exoneration in case of activities which are not in conformity with international law might raise considerable difficulties in the future. It is not at all clear what activities are in conformity with international law if one considers the discussion about the term "peaceful purposes" in the Space Treaty of 1967.

The second matter in this connection which caused difficulties involved the question whether the concept of absolute liability should be applied in all cases where damage has been caused by spacecraft. In addition to third persons on the surface, other spacecraft and airplanes are subject to damage through collision or through interference with the functioning, for instance, by radio waves.

The U. S. originally supported the concept of absolute liability in all cases. A majority appeared, however, to favor a different position. During the 7th session, the U. S. changed its position and submitted a text, which was based on the proposals made by the Hungarian and Japanese representatives:

"The launching State shall not be liable for damage caused to space objects and their personnel during launching, transit or descent unless such damage is caused by the fault of the launching State. If the collision of space objects causes damage to others, the launching States shall be individually and jointly liable for such damage. As between themselves, the launching State shall share equally the burden of such compensation unless there is a showing of comparative fault, in which event the burden of compensation shall be apportioned between them accordingly" [42]).

This distinction seems to have been generally recognized. Indeed, the concept of absolute liability is based on the fact that people on the surface are exposed to a riskful activity and have no means to protect themselves

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[41]) A/AC. 105/58, p. 8.
[42]) See A/AC. 105/C. 2/ SR.94.

against these risks[43]). The situation is quite different for participants in outer space activities. They know the risks their activities entail and can be presumed to have accepted these risks. Similarly, the draft Convention on Aerial Collisions of 1961 imposes liability based on fault for damages caused to other aeroplanes, whereas the aircraft operators are absolutely liable to third persons on the surface. The American proposal does not regulate the case of a collision of spacecraft with aircraft. The Italian proposal provides that damage shall be presumed to be due to the fault of the space object in this case[44]). It cannot be said that the aircraft crew and its passengers have willingly accepted the risks inherent in space activities. Furthermore, the aircraft will not be able to operate escape maneuvers. On the other hand, the aircraft must show reasonably care in flying, for example, near a launching site[45]). The principle of presumption of fault seems therefore adequate in these cases. The agreed text of the Legal Sub-Committee leaves this question open in providing:

> "In the event of damage being caused elsewhere than on the surface of the earth to a space object of one State or to persons or property on board such a space object by the space object of another State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible" [46]).

4. Maximum limit

One reason why the Legal Sub-Committee failed to draft a convention was due to the problem whether the convention should provide for a maximum limit of liability. Only the U. S. draft provides for such a limit[47]). The large majority of countries was opposed to such a limit[48]). The U. S. delegate pointed out that all multilateral agreements on liability laid down some limitation. Indeed, the O.E.E.C. Convention of 1960 provided for a limit of 15 million dollars, and the Brussels Convention of 1962 established a limit of 1,500 million francs for nuclear reactors. The United States have also entered into bilateral agreements, in which a limit of half a billion dollars was fixed, with a number of countries regarding the entry of the nuclear ship "Savannah" into their ports[49]). The Indian delegate objected to the comparison of nuclear conventions with the problems of liability in the field

[43]) See Meloni, International Liability for Space Activity, in: Proceedings of the 10th Colloquium on the Law of Outer Space, 1967, pp. 190 ff.
[44]) Art. 4, para. 2.
[45]) McDougal/Lasswell/Vlasic, *op. cit.* (above note 15), p. 624.
[46]) A/AC. 105/58, p. 8.
[47]) Art. VIII.
[48]) See for instance A/AC. 105/C. 2/SR. 106 and *passim.*
[49]) A/AC. 105/C. 2/SR. 106.

of space activities. He stated that the nuclear conventions included elaborate provisions regarding safety, inspection procedures, etc. and most land based reactors were sited far from centres of population. On the other hand, he argued, it was not known what precautions launching States would take and what damages might eventually occur[50]). This distinction should not be determinative. Even though the amount of potential damage and the type of precautions is, at this period, not yet known, this situation might rapidly change as technology progresses. The underlying reasons for a limit of liability in the field of nuclear energy are equally valid in the field of space activities. Unlimited liability could discourage smaller countries from engaging in space activities if they would run the risk of a financial disaster. In addition, it should not be forgotten that those States which participate in space activities spend enormous sums of money; yet all countries will share, to some extent, the fruits of these activities. For this reason some writers propose that the operator of a spacecraft assume primary responsibility, though only up to a realistic, as opposed to a ruinous amount; whereas a secondary responsibility would accrue to the world community as a whole by creating a community insurance pool[51]). Considering the financial difficulties of the U. N. though, the possibility that such a proposal would be acceptable to the community of States is highly unlikely.

An interesting proposal, based on provisions of German law, has been made by a German writer[52]). The *Atomgesetz* provides for a limit of 500 million Marks for damages caused by a nuclear reactor[53]). This amount would, of course, exceed the financial capability of the operator of a nuclear installation as well as the insurer. For this reason the duty to insure has been limited in Art. 13, Atomgesetz, which provides that the insurance shall be in adequate proportion to the risks involved and shall not be less than the maximum insurance coverage available on the insurance market at reasonable terms. According to this concept, it would be possible to provide in a convention on liability for a compulsory insurance with graduated limits taking into consideration the individual risks. A compulsory insurance appears to best bring into harmony the conflicting interests of participants in space activities and possible victims. The discussions in the 7th session are, in this writer's opinion, based too much on the assumption that States alone

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[50]) *Ibid.*

[51]) McDougal/Lasswell/Vlasic, *op. cit.*, p. 619.

[52]) Wimmer, Suggestions for an International Convention, Zeitschrift für Luftrecht und Weltraumrechtsfragen 1962, pp. 50 ff. Cf. Rode-Verschoer, Report to the Juridical Colloquium, International Astronautical Federation, Vienna 1962, Responsibility for Damage Caused by Spacecraft.

[53]) Art. 36, Atomgesetz, Bundesgesetzblatt 1959 I, pp. 814 ff.

engage in space activities. In the near future, a large number of private enterprises will launch satellites and participate in space ventures. It might soon be necessary to provide a primary responsibility for these entities and a secondary responsibility for the national States. In this case an insurance solution seems unavoidable.

5. Field of application of the convention

The Indian proposal, according to which the convention would not apply to damages sustained by nationals of the launching authority or by foreign nationals who, by virtue of an invitation by the launching authority, are in the immediate vicinity of a planned landing or recovery area, has been widely accepted in the discussions[54]). The underlying reason for this exemption is that such damages should be covered by the national law of the country concerned, not by an international convention[55]). The Italian draft excludes all damages caused on the territory of the launching State[56]). In spite of this formulation, the Italian delegate, in the discussion, accepted the Indian and Czech point of view[57]).

The Legal Sub-Committee agreed therefore that the convention should not apply to damage caused by the space object of a launching State to:

> "a) Nationals of that launching State;
> b) Foreign nationals during such time as they are participating in the operation of that space object from the time of its launching or at any stage thereafter until its descent, or during such time as they are in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching State" [58]).

The question concerning which State should be entitled to claim compensation for foreign permanent residents in the State where the damage occurred was nevertheless seriously discussed. The Australian and Czech delegates agreed, on the one hand, that it should be the State in whose territory the damage had occurred, because such a solution would simplify the procedure and therefore better protect the interests of the victim[59]). The U. K. and Hungarian delegates, on the other hand, saw no need to create an exception to the normal rules of international law, according to which the responsibility

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[54]) A/AC. 105/C. 2/SR. 93, 94, 98.
[55]) A/AC. 105/C. 2/SR. 93.
[56]) Art. 3, para. 2.
[57]) A/AC. 105/C. 2/SR. 93.
[58]) A/AC. 105/58, p. 9.
[59]) A/AC. 105 C. 2/SR. 94, 98.

for protecting persons abroad rests with their national State[60]). The latter opinion indeed seems to better protect the interests of the victim. If only the State in whose territory the damage occurred is justified to claim, then there is a danger that the foreign permanent resident would not be treated as well as nationals of that State. The territorial State may for political reasons not be interested in claiming compensation. In this case a foreign permanent resident might have as – non citizen – a weaker status in that country. It seems therefore better to give every State the right to protect its nationals abroad. Only when the national State refuses to protect its nationals may an exception be justified.

Finally, it should be mentioned that in the case of damage sustained by stateless persons a special provision is needed.

6. Nuclear Damage

All delegations except those of the U.S.S.R. and other Communist countries agreed that nuclear damage should be included in the convention. The Hungarian delegate explained that nuclear damage should be covered by a special convention on liability, regardless of the conditions in which it occurred. He argued that nuclear damage would result in special problems with respect to: a) limitation of liability; b) cases of joint responsibility when two States cooperated in the launching of a space object, one supplying the device and the other the engine; and c) period for the presentation of claims for compensation[61]). On the other hand, most delegations stated that, from the standpoint of the victim, it mattered little whether the space object causing the damage was propelled by a conventional engine or by a nuclear reactor. The convention should therefore be applicable to all causes of damage[62]). Indeed, in the light of future space technology it is essential that nuclear damage be included in the convention. If not, a convention on liability may soon be useless[63]).

7. Applicable law for assessing damages

All drafts, with the exception of the Indian draft, contain proposals for assessing damages. The Italian draft, which corresponds to the U. S. draft, provides that compensation shall be determined "in accordance with applicable principles of international law, justice and in view of the singular

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[60]) See note 58.
[61]) A/AC. 105/C. 2/SR. 93.
[62]) A/AC. 105/C. 2/SR. 108.
[63]) Art. 8.

nature of the matter, equity"[64]). The Italian delegate explained that his primary reason for referring to equity is his desire for a unification of applicable law so that all persons suffering damage would receive the same treatment in all cases[65]). The Hungarian and U.S.S.R. delegates, however, were not prepared to accept such a solution. They criticized the reference to international law as too vague and complicated to reach agreement in the event of litigation. They proposed instead that the law of the launching State should apply[66]). This solution, however, is not satisfactory. A reference to the law of the respondent State entails the danger that a State engaging in space activities might unilaterally enact special legislation regarding damage caused by such activities, thereby restricting its liability. The counter-argument of the U.S.S.R. that the reference in the agreement to the law of the respondent State would apply only to "general ordinarily accepted civil law" presents the insurmountable difficulty of defining what is general ordinary civil law[67]). Difficulties also arise if more than one State is involved in the launching of a space object which caused damage.

The Belgium proposal, which was supported by a larger number of countries, refers to the law of the place where the damage occurred[68]). This would have the advantage of favouring the interests of the victim. Furthermore, the damaged party would be better acquainted with the law of the place where the damage occurred and could therefore better defend his interests. In addition, knowing the law of his own State as well as its inadequacies, he would take necessary precautions, *e. g.* insurance etc. On the other hand, there are some problems which cannot be resolved through reference to the law of the place where the damage occurred. In cases of collisions or interference of space objects, as well as in cases of damages to ships on the high seas or aircraft above the high seas, the principle of *lex loci delicti commissi* could not be applicable[69]).

For this reason a reference to international law, as suggested by the Italian representative, seems most reasonable. As the U. K. stated, the practice of international tribunals is sufficiently large to guarantee a satisfactory jurisdiction, if guidelines are provided by the convention. International law

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[64]) A/AC. 105/C. 2/SR. 91.

[65]) Malik, *op. cit.* (above note 9), p. 357, proposes two parts of a convention with two links. But it seems extremely difficult in case of an incident involving nuclear spacecraft to make a distinction according to the cause of the damage.

[66]) A/AC. 105/C. 2/SR. 99, 105.

[67]) A/AC. 105/C. 2/SR. 105.

[68]) Art. 2; see also A/AC. 105/C. 2/SR. 100.

[69]) See A/AC. 105/C. 2/SR. 105.

could be supplemented by the law of the State where damage occurred or some other law agreed upon between the parties[70]).

During the 8th session the Legal Sub-Committee reached the following agreement on certain of the principles relating to the question of applicable law: The compensation which the respondent State shall be required to pay for the damage under this Convention should be determined in accordance with international law. If there is agreement on the applicable law between the claimant and the respondent, then that law should be applied[71]).

8. Settlement of Disputes

During the 7th session it became obvious that there was an unabridgeable gap between the Communist States and the Western States as to the procedure to be adopted for the settlement of disputes. The Western States considered it essential that the convention should include a compulsory third party settlement of disputes failing bilateral negotiations[72]). The U.S.S.R. and Hungarian representatives could accept neither a reference to an arbitration commission nor to the International Court of Justice[73]). The Hungarian draft provided for a committee of arbitration set up on a basis of parity, which would consist – as the U.S. delegate pointed out – in the most straightforward cases of a representative of the launching State and a representative of the claimant[74]). It is obvious that such a committee could not arrive at a final decision.

IV. Conclusion

The U. K. delegate in the last meeting of the 7th session summarized those points upon which no agreement could be reached as follows:

i) whether the convention should exclude nuclear damage;

ii) whether there should be any limitation of liability in amount;

iii) whether the convention should provide compulsory third party settlement of disputes;

iv) the relationship between international organizations and the convention;

v) the law applicable to measure of damages;

vi) unresolved aspects of joint liability.

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[70]) A/AC. 105/C. 2/SR. 100; see also Csabafi, Selected Chapter from Space Law in the Making, in: Proceedings of the 8th Colloquium on the Law of Outer Space, 1965, pp. 2 ff.

[71]) A/AC. 105/58, p. 6.

[72]) A/AC. 105/C. 2/SR. 101.

[73]) A/AC. 105/C. 2/SR. 101.

[74]) See note 73.

Of these points only the question of applicable law for assessing damages could be solved during the 8th session[75]).

One of the reasons for the failure of the Legal Sub-Committee to reach an agreement is obviously the result of differing approaches of the U.S.S.R. and the U.S.A. Besides this, there is a confrontation of interests of the big space-powers, which wanted to limit liability, and the smaller nations which envisage themselves as potential victims. Although the U.S.S.R. did not support the U. S. proposal with respect to limitation of liability, it stated that in the event of nuclear damage (in a special convention) liability should be limited.

[75]) For a summary of the agreed texts see A/AC. 105/58, pp. 7–10.