

INTERNATIONAL SPACE LAW

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(excerpts from Legal Basis for a National Space Legislation, The Hague, London, and Boston: Kluwer Academic Publishers, 2004).

International responsibility for space activities

In general, international responsibility for national activities in outer space is inserted within the principles of international state responsibility discussed above. However, with respect to the attribution rules it deviates drastically from the general norms of international state responsibility. In this regard, article VI of the Outer Space Treaty prescribes that “States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty.” Thus, unlike general International Law the Outer Space Treaty attributes international responsibility to States for national activities in outer space carried on not only by governmental agencies but also by non-governmental entities, i.e., private firms and individuals. This has been considered to be a revolutionary advancement of the doctrine of international state responsibility, for under the attribution rules contained in the Outer Space Treaty the acts and omissions of non governmental entities are considered to be acts imputable to the State as if they were their own acts. As has been put forward by Bin Cheng, international state responsibility in the outer space field arises the moment a breach of an international obligation is produced and not when the State is seen to have failed in its duty to prevent or repress such breach, for the State is immediately accountable for the breach on the international plane as if it itself had breached the international obligation.

In light of the above, the question remains as to which state will actually bear international responsibility for their national activities.

The most effective interpretation of [...] ‘national activities’ may be made in light of the interrelation of the doctrines of jurisdiction and international responsibility. In this sense, it has

been put forward that a state may be internationally responsible only for those activities over which it has the possibility to exercise legal control. Thus, national activities within the meaning of article VI of the Outer Space Treaty are those activities over which a state has jurisdiction, or more specifically those activities which it has the possibility to exercise legal control. The opportunity to exercise legal control is encompassed in the concept of jurisdiction and more precisely in the jurisdiction of states. Therefore, it is submitted that a State is responsible for the activities over which it has the opportunity to exercise legal control, i.e., activities which are within the state's jurisdiction, whether territorial, quasi territorial or personal.

International State liability

The Liability Convention does not in itself, at least explicitly, attribute international liability to the launching state for damage caused by non governmental entities. However, the interplay between the responsibility and liability provisions of the Outer Space Treaty and the Liability Convention leads to the unquestionable conclusion that under the Liability Convention, States are liable for damage caused by the space objects of their national private entities, since, as arises from the above discussion, the Outer Space Treaty imposes international responsibility to States for the national activities in outer space carried out by non-governmental entities and relates the article VII international state liability principle to the principle of international state responsibility.

However, it has been suggested that this conclusion may not be valid in the cases of States that are party to the Liability Convention but are not parties to the Outer Space Treaty. This proposition neglects to consider the validity of customary international rules in the governance of outer space activities. In effect, ever since the beginning of the Space Age, space activities were conducted in accordance with international law, which includes customary international rules, as well as general principles. Furthermore, a series of General Assembly resolutions reiterated the applicability of customary international law to the outer space arena and the Outer Space Treaty expressly refers to the applicability of international law, which again embraces customary international law as well as general principles. Therefore, since the attribution of international responsibility to States for the national activities of their non governmental entities is a rule of customary international law the concern raised with respect to the possibility of the existence of

States that are parties to the Liability Convention but not to the Outer Space Treaty is fallacious and thus damage caused by private or other non governmental firms would trigger off international liability of the respective launching states even for those States which have not ratified or acceded to the Outer Space Treaty.

Some very respected publicists have also arrived at the conclusion that damage caused by private entities generates international state liability on different legal grounds. For example, Böckstiegel and Cheng hold that the liability provisions are applicable both for launchings by states and by non governmental institutions because invariably at least one of the four criteria for the launching state will be fulfilled in the case of launchings by private entities. This reasoning is erroneous first because it ignores the clear provisions of the Outer Space Treaty and the norms of customary international law and second because there may be cases where a private company may launch a payload without the active involvement of any state, such as the case of a launch from a private launch facility located outside the territory of a State where a State neither procures nor launches a space object.

The launching state

The Liability Convention attributes international liability to the launching state, which is defined as “a state which launches or procures the launching of a space object, or a State from whose territory or facility a space object is launched.” This article shows the complexity of the launch of space objects and the myriad of States which may be involved in a launching operation. The definition of the concept of launching state, which mirrors the standards of article VII of the Outer Space Treaty and the definition contained in the Registration Convention, provides sufficient basis for the determination of the State which bears international liability. However, this definition has given rise to some concerns in the legal literature, especially around the concept of procuring state. In this respect, for example, Carl Q. Christol wonders exactly what degree of activity qualifies a procuring state as such. In the same line of reasoning, for the US Senate Committee on Aeronautical and Space Sciences it is not clear in the Convention whether a State would fall within the category of procuring State if its only connection with a space activity is a minor experiment aboard the spacecraft, or if it supplied only a small component in the spacecraft booster or if it just sent a technical observer. Christol concludes that this question

has been left open in the Convention. Böckstiegel suggests that there should be a substantial threshold test and therefore the provision of small minor components to the payload or the launching of another State, and even the sale of a satellite to another State would not qualify as procurement. However, as Böckstiegel himself recognizes there are in practice many situations which are not at all clear. Thus, it is submitted that each decision as to whether a State falls within the category of procuring state is a question of fact, which should be made on a case by case basis in light of the parameters contained in the definition of launching state. In this respect, Christol's assertion that the Convention has purposefully been left open supports our conclusion that the qualification of a State as a launching state can only be decided in each specific case of damage arising from a space endeavor.

Another deficiency concerning the delimitation of the concept of launching state arising from the text of the Convention is found in article V, which attributes joint liability for any damage caused by two or more States when they jointly launch a space object. Article V neglected to include the procuring State among those which may be jointly liable. As arises from our above discussion, the definition of article I, which includes the procuring State, together with the general principles of joint liability established in the Convention leads to the unquestionable conclusion that a procuring state is to be regarded as a participant in a joint launching, and thus it is subject to joint liability in terms of article V of the Convention. Furthermore, it has been argued that the purpose of establishing several launching states is to ensure that the victim has ample possibilities to be compensated. Therefore a literal reading of article V as excluding the procuring state within those States that must bear joint liability for damage would run contrary to the purpose of the whole Convention.

The other categories of launching states, i.e., the State which launches and the State from whose territory or facilities a space object is launched, are more straightforward and present fewer possibilities of ambiguities. Nonetheless, some controversy has arisen with respect to the launches from the sea, such as the case of the Sea Launch company. There are additional difficulties which may arise from situations which have not been expressly contemplated in the definition of launching state. For example, a problem may arise from the sale of a satellite in orbit. For Kerrest, in case of the sale of a satellite to a national of a State which was not an original launching state, this new State may not be held liable under the Outer Space Treaty and

the Liability Convention, but it could be under general International Law. In light of our above discussion on the notion of international state responsibility and the concept of national activities under the Outer Space Treaty it may not be concluded but to affirm that the new State will be internationally responsible, since the use of a satellite in orbit will definitely qualify as a national activity of the new State, as it will have the opportunity to exercise legal control, i.e., the use of a satellite in orbit will be within the new state's personal jurisdiction, which undoubtedly entails its responsibility on the international plane under the Outer Space Treaty. The State whose national sells the satellite would continue to be a launching state under the Liability Convention, for the Convention does not foresee the possibility of extinguishing liability in any circumstance. However, the new State can execute an agreement with the state whose national sold the satellite whereby the former assumes all liability which may arise from damage caused by the satellite after its sale and consequent transfer of title and whereby it holds the latter harmless and agrees to indemnify it for any loss which it may incur. The Liability Convention itself would allow this possibility, since article V authorizes the possibility of agreements to allocate the financial obligation among States. This, however, will not have effect vis-à-vis the victim whose national State could always seek the entire compensation from any launching States, including the State of the seller of the satellite.

Liability standard and damages

The Liability Convention adopted an absolute liability standard, i.e., objective liability, where the victim does not have to prove the defendant's fault, without any monetary limits, for damages caused by a space object on the surface of the earth or to an aircraft in flight. This parallels the absolute liability standard contained in the four international conventions on liability for nuclear incidents. These conventions consecrated the principle of absolute liability for nuclear hazards and its exclusive imposition on the operators of nuclear installations under four separate international legal frameworks for a civil action for indemnity on the basis of the domestic law of individual contracting parties. However, unlike the Liability Convention they also adopt international minimum and maximum levels for compensation.

Additionally, for damages which take place elsewhere than on the surface of the earth by (i) a space object of a launching State, and (ii) persons or property on board such a space object, the

Liability Convention adopted a subjective standard, where evidence of negligence is required (article III). As in the case of objective liability, article III claims are not subject to any monetary limitations.

The core of the Liability Convention is the full compensation standard imposed on the launching state, which has to restore the victim to the condition which would have existed if the damage had not occurred. This principle, known as full compensation or *restitutio in integrum*, has been borrowed from the Permanent Court of Justice's decision in the Chorzow Factory where the Court held: "that reparation must, as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed."

The Convention has not adopted any domestic law to govern the recovery of damage. Rather, it has opted for International Law and the principles of justice and equity, which solves the problem that may arise from the fact that damage is not equally compensated in every domestic law system.

Specific liability arrangements

The Intergovernmental Agreement on the International Space Station contemplates a special regime for the allocation of liability which includes liability arising under the 1972 Convention. Its objective is to establish a cross-waiver of liability by the Partner States and related entities with the purpose of encouraging participation in the exploration, exploitation, and use of outer space through the Space Station. Cross waivers of liability originated in the first launch services agreements executed by NASA, which were later adopted by all major launch carriers around the world. They constitute the milestone of any space risk management system and are generally complemented by other space risk management tools, which makes the risk allocation and assignment of liability in the space field a complex system with well-defined characteristics. By means of these waivers of liability, each party agrees to be responsible for any damage which it sustains as a result of damage to its own property and employees, whether the damage is caused by the carrier, the customer or other customers involved in the space transport operations and waives all claims against the other parties. As is the case in the International Space Station

Agreement, usually, this is complemented by the obligation imposed on all parties to the agreement to include similar waivers of liability in their agreements with other related entities, so that each will assume its risks and will not sue the other participants.

As arises from the above discussion, these waivers of liability consist of (i) a general assumption of risks by each party, (ii) the assumption of the consequences of those risks, (iii) a consequent waiver of rights to make a claim for liability, and (iv) an indemnification or hold harmless provision in case of actions filed despite the waiver. The purpose of the reciprocal waivers of liability is twofold: first to limit the claims that might arise from a launch, and second to minimize the need to obtain insurance to protect against claims which may otherwise derive from the launch. In effect, under a reciprocal waiver of liability a party is precluded from making a claim, whether judicial, administrative or otherwise, to the other party or parties to the reciprocal waiver of liability agreement.

It has been suggested that the risk allocation regime established under the International Space Station Agreement constitutes an exception to the liability regime consecrated by the Liability Convention. As arises from the above discussion, the Liability Convention allows the possibility of arrangements between launching states to distribute the risks arising from a joint launch. These agreements, however, may not impair the right of a non participant state sustaining damage to seek the entire compensation due from any or all of the launching States. It is thus submitted that the risk distribution regime of the International Space Station agreement qualifies as an agreement among launching states to redistribute their financial obligations in terms of article V of the Liability Convention. These agreements are valid only among these States and are not opposable to non participating states. Furthermore, article XXIII of the Convention supports this conclusion, as it further prescribes that the Convention has no effect on other treaties so far as relations between parties are concerned and that states can enter into treaties reaffirming, supplementing or extending its provisions, provided, however, that these agreements do not affect the rights of the victims.

Non applicability

The Liability Convention does not apply to: (i) nationals of the launching state, and (ii) foreign nationals who participated in the operation of that space object. According to Bin Cheng, the first exception is an application of a basic principle of International Law which refrains from dealing with relations between a state and its nationals, and the second one is an application of the principle *Volenti non fit jura*. As stated, by Herbert Reis, US representative before COPUOS in the 1967 session, the second exclusion was designed to exempt the launching state from liability for foreign observers who accepted invitations to take part in or observe a launching or recovery since these persons could be considered to have assumed any risk entailed. Nonetheless, according to Reis this exclusion does not imply that the launching state might not pay compensation: it might be paid, for example, under article VII of the Outer Space Treaty.