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LIABILITY FROM THE LAUNCH OF A SPACE OBJECT AS A MATTER OF PRIVATE LAW

Souichirou Kozuka
Professor of Law
Sophia University, Japan
s-kozuka@sophia.ac.jp

Abstract

The liability for damages caused by the launch of a space object has been considered as an already settled issue under the Outer Space Treaty and the Liability Convention. However, the Treaty and Convention deals with the state responsibility only, the liability of relevant parties under the domestic law of each country being left unregulated. Faced with the progress of commercialisation of space activities, Japan is considering the enactment of a space law, which might be a good opportunity to introduce a special liability regime for space activities. However, it seems to be unlikely to take place, as no major problem is found with the current practice, especially because of the use of liability insurance.

I. Introduction

In the very early days of space activities, the liability for damages caused by space objects was found to be an important issue. As a result, a very unique scheme was incorporated in the Liability Convention: the strict liability against damages caused on the surface of the Earth or to aircraft in flight and the chanelling of liability to the launching state[1]. The liability mentioned here was the state liability under the international law: the civil liability regime among the entities involved was left to the national law of each country.

In most countries, the private law rules on liability remained untouched, notwithstanding the ever greater role carried by private entities, such as the launch service companies and satellite operators, in the space activities. However, when the legislator considers enacting a law on space activities, it may wish to examine whether any provision specific to the liability arising from space activities needs to be included. Some states, most recently the Republic of Korea, did introduce such rules on civil liability,

[1] Art. II, Liability Convention.

which can be understood as a special rules to the tort law. This article makes a brief analysis of the current liability rules under the Japanese law and examines the needs of having special rules on liability in Japan.

II. The Purpose of Tort Liability

When Focusing on tort liability under the private law rules, rather than the state liability, it may be significant to note that the purpose of tort law is understood to be not limited to the compensation for damages. If compensation is the only purpose to be achieved, the social security system that indemnifies any damage sustained by its nationals may suffice and there will be no need for the tort law. The reason for imposing the liability on the party causing damages may most plausibly be found in the effect of deterrence: the liability works as the incentive for the relevant party to employ necessary care to avoid the accident.[2]

This argument is valid with regard to not only the negligence liability but also strict liability. In fact, the strict liability is the simplest system for giving adequate incentives.[3] Even under the strict liability system, a party can avoid liability by using necessary care, because an accident will never take place if the party carefully behaves. If the accident is expected to take place however much care is used, the party can still avoid liability by choosing not to engage in the activity at all. The social cost of accidents are perfectly internalised and the level of activity and amount of care will be maintained at the optimal.

The negligence system differs from the strict liability in that the finding of liability lies in the hands of the court. As a result, there could be the gap between the level of care actually committed and that observed by the court. The gap will be even greater with regard to the level of activity, as it is harder for the court to declare that the party should have refrained from the activity, as compared with saying that the party should have been more careful in performing the activity.

Therefore, when designing the tort law regime about the space activities, the legislator must be mindful of its deterrence effect and try to achieve the level of activities and care considered to be optimal by the society.

III. Liability arising from space activities against the third party in Japan: the basic rule

We start with the simplest case: the launch fails due to the mistake in operation and the launcher is destroyed, causing the fragments fall down on the area beneath. A fishery boat may be in the area, disregarding or

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[2] Cf. *Kenneth S. Abraham*, The Forms and Functions of Tort Law, Second edition 18-19 (Foundation Press, 2003).

[3] *Steven Shavell*, Economic Analysis of Accident Law 21-26 (Harvard U.P., 1987).

overlooking the warning issued before the launch, and as a result damages were susyained by the people and property on the boat. (Note that overlooking the warning itself does not infringe any law, though it may be considered as contributory negligence.)

If such an accident takes place in Japan, the relevant rule is the tort liability under the Civil Code. It is provided that any party that intentionally or negligently infringes any right or legally protected interest of another party shall be liable to compensate any resulting damages.[4] In other words, the rule is different from the principle under the Liability Convention in three respects: it is the negligence liability, not strict liability; there is no chanelling of liability; the scope of damages is not limited to personal or property damages[5] but covers pure economic loss as long as there is a causal link between the negligent act or omission and the damage.

Suppose, next, the case where the failure of launch is caused not by the mistake in operation but by a defect in the design of the launcher. Under the Japanese law, the liability of the launch service company is the same. The stricter liability for the defects in structures on land[6] is not applicable, since launcher or any other space object cannot be considered as a structure "on land." In this case, however, the manufacturer of the launcher may also be held liable for the damage caused by the defect under the Products Liability Law. The products liability is based on the finding of a defect, rather than negligence, in a way similar to the products liability under the European directive.

It is often argued that, if the launch is sufficiently insured, there is little practical concern with the liability of the launch service provider. The liability is covered by the insurance except for limited cases of exemption, no matter who is liable. Although a problem could arise when the amount of damages is so high as to exceed the insured amount, this is, it is argued, unlikely to be the case: contrary to the case of maritime accident, which often involves the spill of crude oil, serious environmental damages seldom take place from the accident of launch of space objects. Neither is it likely that a highly populated area is damaged,

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[4] Article 709 of the Civil Code: A person who has intentionally or negligently infringed any right of others, or legally protected interest of others, shall be liable to compensate any damages resulting in consequence.

[5] Cf. Art. I (a), Liability Convention.

[6] Article 717 of the Civil Code: (1) If any defect in the installation or preservation of any structure on land causes damages to others, the possessor of such structure shall be liable to the victims to compensate for those damages; provided, however, that, if the possessor has used necessary care to prevent the damages arising, the owner must compensate for the damages.
(2) The provisions of the preceding paragraph shall apply mutatis mutandis to cases where there is any defect in the planting or support of bamboos and trees.
(3) In the cases of the preceding two paragraphs, if there is another person who is liable for the cause of the damages, the possessor or owner may exercise their right to obtain reimbursement against such person.

because the launch cites are cautiously located in a remote area in most space-faring countries, including Japan.

Thus, the request for a special rule providing for the strict liability may not become strong, as long as the launch is adequately insured and the financial soundness of the launching entity is monitored. However, such an argument may be looking at the compensation for damages only, not paying due regard to the deterrence effect of the tort law. The insurance is neutral to the deterrence effect only when the insurer can monitor the behaviour of the operator and give adequate incentive through requiring the premium (or refusing to undertake the risk, if necessary). Besides, it should be remembered that under the negligence system, the level of activities tend to be excessive, as the court is not in a good position to determine the optimal level of activities. In the era when the purely private space activity is not a fairy tale but an actual possibility, preventing an inappropriately planned space activity from being undertaken may be an important role of the tort law rules. Thus, there may be a good reason for the legislator to examine whether the strict liability, similar to the strict liability under the Outer Space Convention, should not be introduced into a domestic law as a special rule of tort law.

IV. Liability of the state under the domestic law

When the launch is carried out by the governmental or semi-governmental body, the applicable liability regime could be the law on the indemnification claim toward the state, rather than the basic rules of tort law. In Japan, such regime is founded by the Law on State Liability, which provides for two kinds of liabilities: the liability caused by the exercise of the public power and the liability deriving from the fault in establishment or management of a public architecture. As regards the first kind of liability, "the exercise of public power" has been interpreted very broadly so as to include any activity except for purely economic transactions.

It has been considered that the space activities by Japan Aerospace Exploration Agency (JAXA) based on the policy of the government falls upon "the exercise of the public power." Besides, a launcher of JAXA has been considered as "public architecture", because the latter term is understood to include not only real property but movables as well. Thus, in the case JAXA undertakes the launch, there is no doubt that any accident caused by it is governed by the State Liability Act and not the tort law rule of the Civil Code.

However, it has been decided that the space activities in Japan be "privatised" so that it is no longer JAXA but the manufacturer, Mitsubishi Heavy Industry, Inc. (MHI), that undertakes a launch from 2007 on. The role of JAXA is limited to the planning and supervising, besides offering

the launch site for use by MHI. Under these changes in the circumstances, the applicable law seems to be less clear than before.

Even after privatisation, the launch by MHI is the "exercise of public power", in cases where the launch is based on the state policy. In this view, MHI is, after all, providing its launch service to state (JAXA). In other cases, the liability of state could be founded on the planning and supervising by JAXA. Such an argument is all the more persuasive, because the supervising activities of JAXA include the final decision of letting the launch proceed (decision of GO/NO GO). If this argument is accepted, the liability of the state under the State Liability Act arises in any way when an accident takes place.

The liability for the faulty establishment or management is also arguable, but with less conviction. It is doubtful that, after privatisation, a launcher itself qualifies "public architecture." If it were to be affirmed, an aircraft parked in a publicly managed airport could also be found to be a "public architecture." However, as long as the launch site remains the property of JAXA, it may be argued that the launch site is considered as the "public architecture" and the defective launcher parked in it may constitute the "fault in ... management of public architecture".

The above argument, of course, does not exempt MHI from any tort liability under the Civil Code, if it or its servant and/or agent is found to have been negligent in the process.

V. The relationship of the state liability and the liability of the operator

If both the liability of the operator, as discussed under III above, and that of the state based on the engagement of JAXA, as discussed under IV above, are found to exist, they are joint and several liabilities. The victim can, therefore, raise either or both claims. The sharing of the liability between the state (JAXA) and the operator (MHI) depends on the extent to which each party contributed to the accident, unless otherwise agreed. In a usual case, an indemnification agreement will be concluded in advance.

In practice, these arguments are again irrelevant with regard to the compensation, as long as the launch is adequately insured. This is because the liability insurance for a launch covers the liability of any party concerned. As regards the deterrence aspect, the reasonableness of the indemnification agreement may depend on the possibility of monitoring between the parties of the agreement.

It is also ordinary that all the entities engaged in the launch of a space object enter into cross-waiver agreements and relieve each other from any liability. Although never tested in the case of space activities, it is doubtful that the Japanese courts enforce such a waiver in case of loss of life or bodily injury caused by an intentional act. Even in the case of a grossly

negligent act, courts are very reluctant to enforce a waiver entered into in advance when it extends to the loss of life or bodily injury.

The policy behind such reluctance of courts about affirming the validity of waiver has not clearly stated. It could be that deterrence effect of liability is (implicitly) considered and the courts wish to control an intentional or grossly negligent behaviour. Whether such negative attitude of courts toward complete waiver should not be overruled by a statute is a policy question worth considering for the legislator.

VI. The Rule on the Conflict of Laws

When the failure of launch involves an international element, as in the case when the damages are caused to the territory outside of Japan or the manufacturer of the faulty component is a foreign corporation, the conflict of laws becomes an issue as well. The current law of Japan on the conflict of laws is the Act on the General Rules of Application of Laws, totally revised in 2007.

Under the Act on the General Rules of Application of Laws, the governing law in the case of a tort is the law of the place where the consequence of the infringing act takes place[7]. In a case of fragments from the failed launcher falling down, therefore, the law of the territory upon which the fragments fell applies. If the area is the High Sea, the law of the flag state of the damaged boat navigating beneath will apply. If, however, there is a place that is apparently more closely connected under the circumstances of the case, the law of such a place applies[8]. If, for example, the damaged party is on the contractual relationship with the damaging party (the launching entity), this super priority provision may be applicable.

These rules on the governing law do not seem to cause any particular difficulty, at least with regard to the case of damages on the surface caused by the failed launch. Therefore, here again, no need for enacting a special provision seems to be existent.

VII. Conclusion

The liability arising from space activities has been only partially addressed by the space law. The Outer Space Treaty, as well as the Liability Convention, addressed only the state liability and left the civil liability to domestic law. Faced by the progress of privatisation and commercilisation of space activities, a question arises whether the domestic law needs to be modified so as to provide special rules regarding the liability from space activities. However, as long as Japan is concerned, no pressing need for such special rules has been perceived. This is notwithstanding the fact that the applicable

[7] Art.17, the Act on the General Rules of Application of Laws.

[8] Art.20, the Act on the General Rules of Application of Laws.

rules of tort law differs from the principles of the Liability Convention, which consists of strict liability and the chanelling of liability.

The principal reason for such absence of interest in enacting liability rules is the availability of insurance that offers almost comprehensive cover. The insurance will indeed offer sufficient compensation, which is a part of the purposes of the tort law. However, another, rather more important, purpose of the tort law is the deterrence and the neutrality of insurance with regard to the deterrence aspect of tort liability is affirmed only when the insurer can monitor the activities of the insured and give adequate incentive to the latter. Based on these observations, it may be needed to reexamine whether there is a reason to have special tort rules with regard to the liability arising form space activities.