

LIMITS TO A STATE'S LIABILITY FOR EXTRA-TERRITORIAL ACTIVITIES

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Abstract

It is increasingly evident that large-scale debris is becoming a real threat to commercial activities in outer space. Although attention has been given at the United Nations to this problem, and particularly to means to mitigate damage to persons and property, there has been a reluctance on the part of some countries to engage in legal discussions designed to clarify the measures available to prevent such harms from occurring.

The 1972 Liability for Damage Convention places no limitation on the monetary compensation which can be awarded to an injured party. If the large-scale debris of one country were to produce catastrophic consequences in another country the former would bear the full burden of such harm. This might impede substantially that country's engagement in the peaceful and profitable exploration, use, and exploitation of outer space and its natural resources.

Consideration should be given to modifying the terms of the Damage Convention so that limitations or caps would

be placed on the amount of compensation that can be claimed by those experiencing catastrophic harm.

Balancing Creativity against Blaming for Failure

The challenge of creativity and innovation is always tempered by the prospect of failure, and, more particularly, by the assignment of blame for failure. However, the consequences of failure, no matter how severe or extensive, must not result in inhibiting or destroying the human capacity for creativity.

In an era of globalization it is a commonplace to take note of our constantly advancing science and technology. The down side is an awareness of very substantial prospects for harm to persons and property. Space catastrophes have blemished major achievements. The possibility that large-scale debris could produce a catastrophe has resulted in national concerns and national deliberations.¹

For well over a decade scholars and public officials have expressed concerns over harms which may be produced by large-scale and small-scale space debris.² The two sub-committees of COPUOS have given attention to the subject. The Scientific and Technical Sub-Committee has focused

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on plans and procedures to mitigate potential harms and has reviewed many proposals designed to protect spacecraft from debris.³ On the other hand, the Legal Sub-Committee, which might have been expected to carry on studies having as their goal the prevention of harm, including the assignment of blame for damage, has been persuaded by assertions that the time is not “ripe” for legal inquiry, and that more studies were required before formal consideration. It has made no attempt regarding space activities to clarify applicable general international law legal principles relating to a State’s protective right to engage in extraterritorial jurisdiction.⁴

Exploration, Use, and Exploitation of the Space Environment Pending Finding a Time “Ripe” for a New Legal Regime for Debris

The “ripeness” of a time suited to formalizing a new legal regime is, in any event, a determination based on political (policy) and practical considerations. At COPUOS, where decisions are subject to the practice of consensus, proponents of any principle or rule (or policy) have a tremendous burden in order to overcome a negative perspective. Since “ripeness” may be subject to the “eye of the beholder,” this makes it almost impossible to obtain consensus.⁵

Thus, if there is a failure to obtain a COPUOS (and ultimately a General Assembly Resolution) on the applicability of a principle allowing for the exercise of extraterrestrial jurisdiction over large-scale foreign space debris, or a statement of legal principles governing debris, what new policies might be adopted to encourage the fullest and freest exploration, use, and exploitation of the natural resources of the space environment?

Several approaches are available to encourage creativity and innovation. First, there is the prospect of economic reward, including obtaining patents and copyrights. Second, there is the possibility of limiting the liability of those who have engaged in negligent, i.e., non-willful conduct which has produced harm.

The Convention on International Liability for Damage Caused by Space Objects established rules governing negligence for space activities.⁶ This agreement encourages safe space activity by making States accountable for harm caused by those who engage in such activities. The attribution of blame is a salient consideration in inducing greater care and caution on the part of those who elect to engage in such activities. The initial duty of care plus the prospect of monetary damages serve to encourage caution in the exercise of beneficial space activities.

Thus, the concept of blame has application both to the need to affirmatively plan for and take protective measures against failure and to observe suitable care in space activities. These criteria apply to failures on the part of persons engaging in private entrepreneurial activities and to public officials who occupy policy-making positions. In assessing the role of those engaged in public sector management Thomas G. White, Jr. has stated:

Another effect that the blame-attribution process has on public sector management is the recognition that the attribution of blame is necessary for the legitimacy of government. What this suggests is that the public expects – even demands – that its government will, for the good of the nation, identify and punish those who are responsible for a disastrous event. If a government is to

claim legitimacy, it must be able to protect its citizens from not only external threats, but internal ones as well. Incompetent and negligent public and private managers are internal threats and must be held accountable if disastrous events occur as a result of their decisions.⁷

Several considerations arise from the foregoing. Where the 1972 Liability for Damage Convention is applicable it is proper to assess blame and to hold the blame-worthy actor accountable in damages. This conclusion applies to space objects, and therefore applies to large non-functioning objects, e.g., debris. While the assessment of damages takes place after harm has occurred, the function of this rule is also to prevent the circumstances which produce the subsequent harm. Further, public officials occupying policy-making responsibilities must accept blame if they fail to implement effectively existing legal rules. The nature and extent of their wrongdoing, in the event of failing to take appropriate measures to mitigate or prevent possible, but not fully proven future harms, is not so clear. Yet, it can be argued that persons holding positions of public trust have the affirmative duty to secure valid rules having applicability to those who engage in action which might result in harms to persons and property resulting from space activities.

Revision of the Damage Convention

The authors of the Damage Convention were committed to furthering mankind's beneficial exploration, use, and exploitation of outer space and its natural resources.⁸ In order to achieve this goal it may now be necessary to modify some of the particulars of the Damage Convention. In order to encourage outer space activity, and

especially to foster commercial activities in space, including space tourism, it is suggested that a monetary limit, or cap, be placed on the amount of damages that could be assessed against private and public entities whose space activities have produced harm to persons and property. This limit on recovery for proved harm, for example, the harm resulting from the deorbiting of large scale space debris, would serve as an inducement to engage in peaceful space activities. Freed from the total liability resulting from catastrophic events, both private and public entities will be encouraged to embark on socially desirable and productive enterprises.

While limitation on liability has often been supported as a means to encourage "infant industries" in getting started, it may be supposed that space activities do not fall within such a characterization. However, if a mature industry is perceived as one in which science and technology have been applied so successfully that there is not a large amount of risk involved, then it is possible to conclude that the space industry is still an infant industry and should be entitled to protection against unlimited liability.

Almost innumerable areas of human endeavor have been granted the protective status of limitation on liability. Limits have resulted from formal international agreements, from national laws and regulations, and from private agreements.

Limits on Liability for Damage in International Agreements

A brief identification of formal international agreements will demonstrate the acceptability of limits on liability. Agreements dealing with ocean oil spills have placed limits on civil liability for oil

pollution damage. Protocols adopted in 1984 limit a ship owner's liability to \$86 million, with the total in a given incident at \$194 million. These environment protective agreements have been augmented by agreements on the prevention of pollution from ships and by engagements to prepare against pollution as well as prohibition of dumping wastes at sea. These led in 1996 to the International Convention on Supplemental Compensation for Nuclear Damage for Transport to Nuclear Materials by Sea. It placed the limit of liability at \$400 million, with the further proviso that if damages were to exceed \$400 million that a contributory fund was to provide additional relief.

Limits on Liability for Damage in National Laws

American statutes also limit liability for harm arising in a variety of situations. Concern over nuclear incidents led to the adoption in 1954 of the Price-Anderson Indemnity Act.⁹ Section 170, known also as the Atomic Energy Act, established a \$500 million limitation on liability. The statute applies to harms occurring in the United States and abroad. The harms include bodily injury, sickness, disease, death, and loss of or damage to property.

Damages resulting from the storage of nuclear waste has resulted in statutes imposing limited on liability. The 1980, as amended, Comprehensive Environmental Response, Compensation, and Liability Act imposed certain duties on states where storage takes place. The federal government established criteria for the transportation of nuclear waste and proper procedures for the maintenance of landfills. If states follow the identified criteria the statute fixes a monetary cap on their liability for harms.

Legislation in the United States has created limitations on the liability of those engaging in space activities. To protect parties experiencing harm the present version of the Commercial Space Launch Act provides for a process to assure governmental indemnification. The launching entity must obtain insurance coverage in a sum specified in the license. If there were a catastrophic event the government would indemnify the harmed persons up to \$1.5 billion above the insured amount, subject to the appropriation of the identified sum by the Congress.¹⁰

Limitations on claims have been employed in a variety of other situations where the public interest has been found worthy of protection. A recent example in the United States is legislation imposing limitations on gifts of money to candidates for political office. States, such as California, which has been experiencing shortages of electrical energy, believing that payments made to power suppliers for wholesale supplies of such energy were unjust and unreasonable, has initiated steps to impose limits on such prices. In time of war and other large-scale emergency there have been countless instances of imposing limits on the prices to be charged for food, gasoline, rents, and other dear commodities.

With these instances in mind it is suggested that there is nothing novel about imposing monetary limitations on damages for almost all kinds of economic activity. In the United States there have been some efforts to impose limits on the liability of producers of tobacco products and on the manufacture of silicone breast implants. States have imposed limits on recovery in medical malpractice cases. Legislatures and courts have placed limits on contingency fees, that is, a non-fixed fee basis for legal services. This practice has been seen as

socially undesirable particularly in class-action suits in which plaintiff recoveries in jury-tried cases have resulted in multi-million dollar judgments. This tendency has taken the form of legislation repealing defenses that have long been open to defendants. A fixed-fee basis for legal services meets with public policy outlooks in many countries.

Conclusion

The argument for limitation on liability for those engaging in space activities does not lessen the importance of liability insurance. Such insurance carries with it carefully considered exemptions from coverage, e.g., areas in which the buyers of insurance are self-insured.

A legal limitation on liability for damage for risky and hazardous space activities will be an incentive for those who embark on commercial activities in outer space. This proposal for relief, which flows from the failure to address preventive legal procedures, is put forward as a suggestion for governmental action.

As noted earlier, the failure of governmental officials to encourage promising economic activity constitutes blameworthy conduct. While it may not be possible at this stage of history to impose monetary penalties on them, it is also possible that they can be faulted by well-considered public opinion for failure to support a constantly expanding opportunity to engage in the peaceful exploration, exploitation, and use of outer space and its natural resources.

A thoughtful and focused approach to this situation by space lawyers may prove to be beneficial.

NOTES

1. Reference need be made only to the January 27, 1967 Apollo 1 disaster and to the January 28, 1986 Challenger catastrophe. Concerns have been voiced for many years that large-scale debris might impact on the surface and that this could produce harms to persons and property. As the Russian Mir, which cost \$4.2 billion to build and maintain, was being readied for deorbiting late in 2000 and early in 2001, it was reported that "some 80 countries have expressed fears about the splashdown and have asked Russia to keep them posted on the descent." *Christian Science Monitor*, p. 6, 21 Feb. 2001. Mir contained up to 27.5 tons of aluminum and titanium parts, with some weighing up to 1,500 pounds. Russian officials negotiated a \$200-million insurance policy to compensate for those who might experience loss or suffering on Earth. *Los Angeles Times*, p. A17, 7 March 2001. Although no harms have been reported after Mir fell into the South Pacific Ocean in March, 2001, in an area about 120 miles wide and 3,600 miles long east of New Zealand's southern tip, there was a valid concern in December 2000 when there was a 20-hour loss of radio contact. *Christian Science Monitor*, p. 15, 8 March 2001. Russia's concern was also reflected in the formation of a joint Russian-American joint operating plan designed to minimize potential damages. F. Sietzen, Jr., "Mir Resting in Peace," 39 *Aerospace America*, No. 5, p. 36 (May 2001).

This event can be compared to the American Compton Gamma Ray Observator which deorbited on June 4, 2000 in a planned corridor ranging from about 2,500 miles southeast of Hawaii

and extending in a south-easterly direction for some 2,000 miles. The satellite weighed 17 tons including titanium, which transited through the atmosphere without incinerating. *Los Angeles Times*, p. A14, 5 June 2000.

Influencing the belief that States may need to exercise extra-territorial jurisdiction over potentially harmful large space debris was the decision in 1998 by Iridium to deorbit 66 satellites composing its operational network. These were located in "six orbital planes [with] each plane . . . [being] populated with 11 operating satellites and one spare." 33-34 TRW SPACE LOG 17 (1999). They range in size from 556 kg to 667 kg. As with larger debris their deorbiting raises issues of blame and liability for damage.

2. See, for example, K.-H. BÖCKSTIGEL, ed., ENVIRONMENTAL ASPECTS OF ACTIVITIES IN OUTER SPACE, STATE OF THE LAW AND MEASURES OF PROTECTION (1990); papers presented at the 18th IAA IISL Scientific-Legal Roundtable on PROTECTION OF THE SPACE ENVIRONMENT, *Proceedings of the 42nd Colloquium on the Law of Outer Space* 443-501 (2000); papers appearing in the *Proceedings of the Institute* for the past 10 years including C.Q. Christol, "Protection Against Space Debris – The Worst Case Scenario," 346-358 (2001), and E.A. Frankle, "International Regulation of Orbital Debris," 369-379 (2001). The last two are cited since the authors take quite different approaches to the subject.
3. An example of national suggestions on this subject is contained in the 2000 United Kingdom Task Force on Potentially Hazardous Near Earth

Objects Report. It states: "We recommend that the government, with other governments, set in hand studies to look into practical possibilities of mitigating the results of impact and *deflecting incoming objects.*" 17 *Space Policy*, No. 1, 66, February 2001 (italics added).

4. U.N. DOC. A/AC.105/738, 12-13, 20 April 2000. The difference between preparing in advance for a possible catastrophe and responding after the event appears in the Christol and Frankle papers cited in footnote 2, and in the comments made by IISL participants at the Rio de Janeiro session in 2000, which are printed in that year's *Proceedings* at page 398.
5. In 2000, as in past years, the United States told the Scientific and Technical Subcommittee that it would be premature for the Legal Subcommittee of COPUOS to consider the issue of space debris. U.N. Doc. A/AC.105/736, 15, 25 Feb. 2000. Attention was called to the fact that the launching industry and satellite operators are aware of the dangers imposed by the presence of debris. Further, self-imposed guidelines have been disregarded for technical and managerial reasons. C.W.N. Davies, U.N. Reports, 28 *J. Space. L.* No. 1, 33 (2000).
6. Entered into force on 1 Sept. 1972. 24 UST 2389; TLAS 7762; 961 UNTS 187.
7. Thomas G. White, Jr., "The Establishment of Blame in the Aftermath of a Technological Disaster, An Examination of the Apollo 1 and Challenger Disasters," 81 *National Forum (Phi Kappa Phi Journal)*, No. 1, 28 (Winter 2001).

8. **Article 1, Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies**, entered into 18 UST 2410; TIAS 6347; UNTS 205.
9. 42 U.S. Code 2210.
10. U.S. Code, title 49, Subtitle IX. See, Richard W. Scott, Jr., "Policy Legal framework for Space Tourism Regulation," 285 *J Space L.* No. 1, 9 (2000).