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The United States Government as Defendant—One Example of the Need For a Uniform Liability Regime to Govern Outer Space and Space-Related Activities

Joseph A. Bosco*

I. INTRODUCTION

This Article will attempt to examine potential tort liability for outer space and space-related activities from the limited perspective of the United States Government. However, my goal is to illustrate in general some of the inconsistent liability regimes applicable under present federal law in dealing with liability to third persons for such activities. These inconsistencies will be illustrated using hypothetical examples involving one defendant, the United States Government.

The application of the existing law to the United States Government provides a graphic illustration of the potential inconsistency and unfairness of the present applicable law in this area. These inconsistencies are due to specific statutory and judicial exemptions, and a very different liability regime applicable exclusively to non-United States citizens damaged, injured, or killed as a result of outer space and space-related activities involving the United States Government or United States private enterprise. The absurd and unjust results caused by the application of inconsistent liability regimes to the same disaster are not limited to situations where the United States Government is a defendant, but can arise in any disaster because of

* A.B., University of Notre Dame, 1979; J.D., Loyola University, 1982; LL.M., Institute of Air & Space Law, McGill University, 1986. Mr. Bosco is associated with the law firm of John J. Kennelly & Associates, Chicago, specializing in aviation litigation. The opinions expressed herein are solely those of the author.
varying and arbitrary damage and liability criteria which exist under the present legal system.

In the United States, there are in excess of fifty different potential jurisdictions for a case involving a space-related accident, each possessing its own body of procedural and substantive law. Moreover, the various laws applicable to transitory torts in the United States are antiquated, outdated, and not attuned to modern-day reality. The fact is, that in this highly mobile country, wide differences exist among various jurisdictions in the applicable law governing transitory torts such as plane, train, bus, and now outer space accidents. The illustration of potential inconsistencies of the existing law’s application to the federal government could also, in many respects, be applied to private contractors, subcontractors, manufacturers, operators, and other potential defendants, in any outer space or space-related accident which results in damage, injury, or death to third persons unconnected with the activity. This is the root of the problem: varying international, national, and state liability regimes within the United States legal system which, based upon such arbitrary considerations as citizenship, fortuitousness of place of the accident, or domicile of the plaintiff or defendant, apply differing liability and damage criteria to victims damaged, injured, or killed in the same accident.

As mentioned above, there are wide differences among jurisdictions as to substantive and procedural law. Mr. John J. Kennelly cogently summarized some of the more important differences in regard to state wrongful death statutes, which could be applicable to deaths due to outer space-related activities:

- In regard to the compensatory damages in wrongful death cases, the statutes of some states permit damages for the mental pain and suffering of the surviving next of kin, whereas others do not. Some states permit damages for the loss of society, companionship, services and consortium to the surviving spouse. Still other states permit damages for pre-death pain and suffering, while others do not. Some states permit damages for loss of inheritance, yet others do not. Some states permit punitive damages in both injury and death cases, while still others permit such damages in injury cases, but not in death cases. Some states allow punitive damages based upon vicarious liability. Others require proof of egregious conduct of a corporation at a managerial level. Some states impose an arbitrary amount of damages for the deaths of single persons without dependents. Some states allow prejudgment interest, i.e., interest from the date of death. Even as to those states which allow prejudgment interest, the rates of such interest vary substantially.

- There are other patently indefensible differences among the laws of the states regarding damages in wrongful death cases. Under Florida law, for example, which permits damages for mental pain and suffering of next of kin, an award of $1.8 million in damages was affirmed for the death of a 16-year-old boy, as a result of the crash of a commercial airliner. Indiana law, on the other hand, limits the damages in such a case to funeral expenses and nominal
costs for administering the estate.\(^1\)

The particular substantive and procedural laws to be applied in a case may determine the elements of injury or loss to be used in calculating damages, the amount of recovery, and possibly whether there will be any recovery at all. Unfortunately, even after a thorough analysis of the respective substantive and procedural laws of each jurisdiction, there is often no way to predict whether the court will, in fact, apply such law. Even if a case is filed in one jurisdiction, that jurisdiction’s choice of law rules may direct the particular court hearing the case to apply the law of another jurisdiction. Ironically, lawsuits are often filed in a particular forum in order to guarantee that another jurisdiction’s substantive law will be applied. As a result, in the case of transitory torts, it is frequently impossible to predict what will be the applicable substantive law.

Unquestionably, there is something patently unfair about two persons possessing the same types of injuries receiving extremely divergent remedies, simply because of a party’s forum choice. Consider a hypothetical where two men are killed due to the same space-related accident, with which they were totally unconnected. Each man earned the same amount of money and had the same life expectancy. Each is survived by a wife and the same number of children of the same ages. Yet, under present law, because of such arbitrary considerations as citizenship, residence in one state as opposed to another, the fortuitousness of the place of the accident, the domicile of the manufacturer involved, or a difference in the specific occupations of the men, one family could receive little or no compensation while the other family receives prompt, fair, and adequate compensation. Unquestionably, reformation of the present liability system is necessary to create uniformity of remedies in the United States.

Under the present liability system, only participants in space ventures are adequately protected. The major difference between the uncertainties of liability toward participants and unrelated potential victims is that the former group is relatively sophisticated and well connected. This is evidenced by the fact that most potential space liabilities are enumerated in the risk allocation provisions in contracts entered into by participants of space ventures. Typically, parties to these types of clauses are secure in the knowledge that liabilities are controlled by advance negotiation, and are clearly defined between

participants, or more properly, by their respective insurance and reinsurance carriers. Furthermore, private industry has been secure in the knowledge that exposure to liability is oftentimes controlled by the fact that in ventures involving the United States Government, the government has been willing to indemnify any private space participant for liability to third parties beyond that company's insurance policy.\(^2\) In contrast, where do innocent third parties who are damaged, injured, or killed stand with respect to their right to fair, prompt, and uniform measures of compensation? These people certainly do not have the benefit of advance direct negotiations or clearly defined contracts spelling out exactly what their recourse might be. They are forced to operate within the system as it presently exists.

Unfortunately, even though a multilateral treaty, which deals exclusively with international liability resulting from damages caused by space objects, has been ratified or acceded to by a substantial number of countries,\(^3\) and even though there is a substantial body of maritime and aviation law which United States and foreign courts can easily apply to such torts, the fact is that both internationally and domestically, the law of tort liability as applied to outer space or space-related activities is still in an embryonic stage of development. The existing body of law is inadequate to insure *prompt* resolution of claims for damage, injury, or death which would include *fair and uniform liability and damage criteria*. While business interests and advocates of potential victims may disagree as to the specific standards of liability or specific elements of damages which should be available (each advocating laws favorable to their own self-interest), all should agree that predictability and uniformity would be beneficial, and that arbitrary considerations should be eliminated.

It is hoped that by examining the potential liability regimes applicable to just one potential defendant, and the inherent inconsistencies and injustices which result from application of these regimes, that the need for a uniform liability regime will become obvious.

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\(^2\) See Act of Aug. 28, 1958, Pub. L. No. 85-804, 72 Stat. 972 (1958) (permitting federal government to provide indemnity to contractor in procuring defense items); see also National Aeronautics and Space Administration Authorization Act of 1980, Pub. L. No. 96-48, § 308, 93 Stat. 345, 348 (1979) (allowing NASA to indemnify contractors on condition that NASA is named as insured on contractor's policy of insurance). However, potential liability to unrelated third parties may not always be able to be managed by contract among participants. Rapid and prolific private commercialization ventures may lead to a tightening of the reins by the United States on activities in which the United States Government is not directly involved. This may in turn lead to "bet the company" exposure every time a private company participates in a commercial space venture.

II. THE UNITED STATES GOVERNMENT AS AN INTERNATIONAL DEFENDANT

Under existing international law, which has been adopted by the United States Government through United Nations Resolutions and ratification of and adherence to multilateral treaties, the United States Government is absolutely liable if United States Government or United States private outer space or space-related activities, which commence with a launch or attempted launch of a space object, proximately cause damages, injuries, or death to foreign nationals on the surface of the earth or to their aircraft in flight.4 However, this broad-based absolute liability regime which foreign nationals are given does not apply to United States citizens.5

International law, through multilateral treaties and international custom, sets forth the well established principle that countries are internationally liable for damages, injuries, or death arising out of outer space or space-related activities. The first formal proposals submitted by the United States to the legal subcommittee of the United Nations Committee on Peaceful Uses of Outer Space (COPUOS) in 1962 essentially advanced this principle.6 International liability was initially adopted by the United Nations in General Assembly Resolution 1962, entitled "Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space."7 This declaration provided that states must assume international responsibility for the outer space activities of both governmental agencies and non-governmental entities. States which conduct outer space activities are thus liable to foreign states for any damages which primarily arise from those activities.

This principle was formally adopted by the United Nations General Assembly in 1963 with little debate. Although there was disagreement between the U.S.S.R. and other countries concerning the commercialization of outer space by private enterprise, these discussions did not disrupt the adoption of this resolution.8

A similar provision was incorporated into Article VII of the Outer

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Space Treaty of 1967. Article VII declared that party-states would be liable for damages caused by the launch, or procurement of launching of objects, into space. As in the 1962 General Assembly Resolution, the jurisdiction of the treaty extends to both airspace and outer space.

Article VI of the Outer Space Treaty imposes liability upon party-states for negligent or wrongful acts committed in space, whether carried out by governmental or non-governmental entities. This principle is embodied and further clarified in the Liability Convention, which is the main international instrument dealing with third party liability for outer space activities. It has been ratified or acceded to by over eighty countries, including the United States.

The Liability Convention seeks to afford victims prompt and adequate compensation by affixing international state liability for the participation of countries or their nationals in outer space and outer space-related activities. It provides the legal framework necessary to impose state liability for damages caused by space objects. Claims are pursued:

by claimant States on behalf of their natural juridical persons against launching States for governmental, military, and private space activities of their natural or juridical persons which have caused damages. The principal effect of the Convention is to formally begin the calibration and refinement of the concept of State liability by establishing a body of substantive and procedural law governing the rights of launching and claimant States.

The Liability Convention also sets forth an absolute liability regime for damages, injuries, or death caused on the surface of the earth. While there is room for interpretation in many of the key provisions of this treaty, there is very little which can exonerate or exempt a country from liability to unrelated third persons who are proximately damaged, injured, or killed on the surface of the earth, once it has been established that a country or its private persons or juridical entities participated in or procured the launch or attempted launch of the space object.

The Liability Convention contains a dual system of liability which begins with the launch or attempted launch. It establishes that a state is liable for “damages” caused by “its space object,” regardless

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10. Id. at 2415, T.I.A.S. No. 6347, 610 U.N.T.S. at 209.
11. Id.
12. Liability Convention, supra note 3.
14. Bosco, supra note 8, at 310 (emphasis in original).
of where these damages are caused. Articles II, III, and IV effectively encompass all areas in which damages can be caused. The dual liability regime, absolute liability and fault liability, is divided into separate zones of applicability. By dividing the liability regions into “the surface of the earth or to aircraft in flight” and “elsewhere than on the surface of the earth,” the drafters cleverly avoided the unresolved problem of the definition/delimitation of “outer space.”

Article II of the Liability Convention specifies that a “‘launching state’ shall be absolutely liable for ‘damage’ caused by ‘its space object’ on the surface of the earth or to aircraft in flight.” As a result, a state will be liable without fault or negligence on its own part if damages arise in these regions. The claimant state will have to prove that: there was damage; the instrumentality was a space object; the damage was caused by the space object; and that the state from which damages are sought “launched” or “procured the launch,” or was the State from whose territory or facility the space object was launched.

Under Article III of the Liability Convention, when a space object of one state causes damage to another space object, or to persons or property on board, while the object was situated somewhere other than on the surface of the earth, liability will be determined by fault allocation. Thus, it would seem that negligence principles would be applicable to entities damaged, injured, or killed in outer space.

Under Article IV, in the event that multiple states are involved in the accident,

both launching States shall be liable for any damage caused to a third State: if the damage was caused to the third State on the surface of the earth or to aircraft in flight, the liability shall be absolute; if the damage was caused to a third State’s space object or to persons or property on board the third State’s

16. Id. at 310-11. It should be noted that:
The definition/delimitation of where air space stops and where outer space begins has been debated in COPUOS for over 20 years without a commonly accepted definition. The legal ramifications are significant; this is because air space and outer space are governed by radically different legal regimes: air space is governed by Article I of the 1944 Convention on International Civil Aviation . . . which states, “Contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory.” Outer space is governed by Article II of the Outer Space Treaty which states, “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”

Id. at 311 (citations omitted).


18. Id. at 2392, T.I.A.S. No. 7762, 961 U.N.T.S. at 190.
Joint and several liability shall be imposed irrespective of where the third state suffered damage. If the compensation cannot be apportioned by fault, then the burden of compensation shall be apportioned equally. In short, the third state has the right to seek and obtain full compensation from any or all states which are deemed jointly and severally liable.

With regard to elements of damages recoverable under the Liability Convention, no consensus was reached on the formulation of a body of specific international damage law to be applied. As a result, only very general rules were formulated. Article I(a) defines "damage" as "loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations . . . ."21

Article XII provides all the substantive guidance to be found with respect to damage law:

The compensation which the launching State shall be liable to pay for damage under this Convention shall be determined in accordance with international law and the principle of justice and equity, in order to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organization on whose behalf the claim is presented, to the condition which would have existed if the damage had not occurred.22

No liability limits have been imposed and any specific elements of damages have yet to be enumerated. The guidelines presented above were not, however, intended to resolve all the issues which will arise. One significant problem is choice-of-law provisions.23 The only guidance given is that compensation will be predicated upon principles of justice and equity.24 Guidance can be found in the much quoted and widely recognized decision of the Permanent Court of International Justice in the Chorzow Factory case.25 Therein it is noted that:

The essential principle contained in the actual notion of an illegal act—a principle which seems to be established by international practice and in particular by the decisions of arbitral tribunals—is that reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed.26

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19. Id. (emphasis added).
20. Id.
21. Id. at 2382, T.I.A.S. No. 7762, 961 U.N.T.S. at 189.
22. Id. at 2389, T.I.A.S. No. 7762, 961 U.N.T.S. at 187.
26. Id.; see also D.W. GREIG, INTERNATIONAL LAW at 596-604 (2d ed. 1976).
By applying principles of equity, it would be possible to integrate the differing legal systems. It seems evident that the application of a mechanistic formula will result in injustice because of the differing damage recovery laws of different countries. Traditional damage recovery, such as loss of profit, sentimental value, interest, and pain and suffering, have not gained wide acknowledgement in Soviet and Eastern European legal systems.27 The concept of compensation in the U.S.S.R. is determined based upon "institutional costs (hospitals, schools, state pensions) rather than personal loss to the individual."28 Accordingly, the results in cases proceeding in fora governed by mechanistic choice-of-laws clauses, could be very harsh. The same injuries sustained by a person within one jurisdiction could clearly be "worth more" than those sustained by a person in another jurisdiction.29 Professor Foster states:

The primary advantage of the use of international law, justice and equity is that it should ensure uniformity in the assessment of compensation; all who suffer damage in space object accidents will be subjected to the same rules governing compensation irrespective of their nationality, the place where the accident occurs, and the identity of the launching state. In the event that international law should prove deficient or uncertain, recourse may be had to the "principles of justice and equity," which will normally consist of rules of general application in the municipal legal systems of the world, to fill the gaps and cure the ambiguities.30

A uniform international approach to damage awards would effectively make the awards for damages more equitable throughout the various jurisdictions. It would have the effect of lowering awards recovered in jurisdictions such as the United States, traditionally known for their generous damage awards, and raise awards given in more conservative jurisdictions.

The significance of the formation of the Liability Convention as an instrument of international law cannot be underestimated. It creates a practical and workable system of liability which is divided into geographical areas. Its most far-reaching achievement is the imposition

28. Id.; see Martin, Legal Ramifications of the Uncontrolled Return of Space Objects to Earth, 45 J. AIR L. & COM. 457, 464 (1980).
29. See Bosco, supra note 8, at 338 & n.65. A glaring example is the mass disaster of 1984 at Bhopal, India, in which a chemical leak at the Union Carbide pesticide plant resulted in the death of more than 2,500 people and the injury of another 100,000. In India, victims must pay high filing fees in order to bring suit, and awards are relatively very low when compared to United States awards. Id. at n.65.
30. Id. at 338-59 (quoting Foster, The Convention on International Liability for Damages Caused by Space Objects, 10 CANADIAN Y.B. INT'L L. 137, 172 (1972) (footnotes omitted)).
of absolute liability upon countries, as well as their private persons
and juridical entities for outer space activities which result in dam-
ages, injury, or death to property or persons of unrelated countries.
The imposition of absolute liability is the victim's key to recovery.
Sovereign immunity, act of God, and other such traditional defenses
to liability are nonexistent. However, there is one important excep-
tion: Nationals of the launching country are specifically excluded
from the benefits of this multilateral treaty, as are foreign nationals
who are participating in the operation of the space object. Their
rights to prompt, adequate and fair compensation, if any, are dictated
by the applicable national law. Article VII of the Liability Conven-
tion states:

The provisions of this Convention shall not apply to damage caused by a
space object of launching State to:
(a) Nationals of that launching State;
(b) Foreign nationals during such time as they are participating in the oper-
ation of that space object from the time of its launching or at any stage there-
after 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.31

This clause in the Liability Convention removes from United
States citizens the benefits and protections of this victim-oriented
multilateral treaty, when injuries, damages, or death are proximately
caused by the United States Government or United States private
outer space or space-related activities. United States citizens dam-
aged, injured, or killed as a proximate result of such activities must
instead seek redress under United States national and state laws. To
put it bluntly, they are precluded from the benefits and protections
of the Liability Convention and its absolute liability provisions be-
cause of their citizenship.

III. THE UNITED STATES GOVERNMENT AS DEFENDANT UNDER
UNITED STATES LAW

While a broad-based absolute liability regime is afforded to foreign
nationals under the Liability Convention, as the following analysis
and examples will demonstrate, in contrast, any attempted recovery
by United States citizens against the United States Government is ex-
tremely limited. The road to recovery for damages, injuries, or death
from the United States is fraught with barriers, exceptions, and tech-
nicalities which substantially limit the possibility of recovery to spe-
cific narrowly defined and strictly construed situations. As this
section will illustrate, because of these "exceptions," a myriad of in-
consistent and unjust scenarios may unfold when the United States

31. Liability Convention, supra note 3, at 2395, T.I.A.S. No. 7762, 961 U.N.T.S. at
191.

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Government, through its agencies, is a defendant to a suit brought by a United States citizen.

A. Sovereign Immunity of the Federal Government

Under the doctrine of sovereign immunity, a sovereign cannot be sued in its domestic courts or in courts of foreign countries without its consent. The concept of sovereign immunity did not exist in the United States until the nineteenth century. Nineteenth Century courts developed the doctrine relying on the theory "that the King, in his personal role, was immune from suit"; in other words, the King could do no wrong. Over the years, the doctrine has been eroded by the congressional enactment of a number of statutory waivers of sovereign immunity. However, because any suit against the federal government is an exception to the broad immunity traditionally enjoyed by the United States, any waiver of sovereign immunity is strictly construed and riddled with restrictions and limitations. Consequently, any potential liability of the United States for outer space activities must be carefully analyzed, not only with reference to common law tort principles, but also with reference to specific congressional waivers of sovereign immunity.

The waiver of sovereign immunity and the consent of the United States to be sued can be granted only by act of Congress. Consent must be clearly, expressly, and explicitly given; such consent cannot be inferred from an ambiguous statute. Further, when waiving sovereign immunity, Congress may impose any conditions, restrictions, or limitations it deems necessary, including "how, when, and where" the suit may be maintained. These conditions must be strictly followed and cannot be waived, for they define the jurisdic-

33. Id. at 553; see generally 3 K. Davis, Administrative Law Treaties §§ 25.01-.17 (1958) (discussing wide variety of issues surrounding tort liability of the United States Government).
34. Dalehite v. United States, 346 U.S. 15, 30 (1952) ("no action lies against the United States unless the legislature has authorized it").
35. Malman v. United States, 207 F.2d 897, 898 (2d Cir. 1953) (action to enforce attorney's lien under army contract; held government consent must be explicit).
36. General Mut. Ins. Co. v. United States, 119 F. Supp. 352, 354 (N.D.N.Y.), reh'g denied, 207 F.2d 897 (2d Cir. 1953) (statute allowing suit against federal government for "money damages" held not sufficiently explicit to recover funds; waiver by United States could not be implied).
37. United States v. Alibert, 63 F.2d 965, 966 (10th Cir. 1933).
tion of a court to hear such actions.\textsuperscript{38}

It has been stated that when the United States is sued pursuant to a waiver of sovereign immunity, it "is in no different position from any other party."\textsuperscript{39} However, an analysis of the statutory waivers of sovereign immunity and their practical applications reveals that because of the congressional imposition of conditions and restrictions, the United States can take advantage of a plethora of privileges which place it in a far more advantageous position than "any other party" when defending itself. These special privileges also extend to situations where the United States Government is made a defendant in an outer space or space-related accident. These privileges exist even though the United States Government has, by way of multilateral treaty participation, waived many of these special privileges in space accidents involving foreign nationals.

B. Waiver of Sovereign Immunity in the Federal Tort Claims Act

Perhaps the broadest national waiver of sovereign immunity, and the most important national remedy for persons suffering injury arising out of the tortious conduct of the United States Government, is the Federal Tort Claims Act (FTCA).\textsuperscript{40} It gives the federal district courts:

exclusive jurisdiction of civil actions on claims against the United States, for money damages, . . . for injury or loss of property, or personal injury or death caused by the negligent or wrongful act or omission of any employee of the Government while acting within the scope of his office or employment, under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.\textsuperscript{41}

The FTCA applies to claims by United States citizens for redress for damages, injuries, or death arising out of direct or indirect United States outer space activities. However, under United States international law, as codified by international treaties ratified or adhered to by the United States, the United States Government is absolutely liable for injuries, damages or death to foreign nationals damaged, injured, or killed as a result of space activities of the United States Government, and as a result of space activities of private entities. There is no comparable right of redress against the United States Government for injuries resulting from private activities given to U.S. citizens. Nor is the federal government absolutely liable to do-

\begin{itemize}
  \item 38. Munro v. United States, 303 U.S. 36, 41 (1937); Bachman, Emmerich & Co., Inc. v. United States, 21 F. Supp. 682 (S.D.N.Y. 1935) (motions to dismiss petitions to recover income taxes granted on grounds that plaintiffs failed to comply with statutory procedures for actions on claims against the United States); United States v. Acord, 209 F.2d 709 (10th Cir.), cert. denied, 347 U.S. 975 (1954).
  \item 40. 28 U.S.C. §§ 2671-2680 (1982).
  \item 41. 28 U.S.C. § 1346(b) (1982) (emphasis added).
\end{itemize}
mestic citizens. Further, while courts have stated that the FTCA should be construed to equate the "liability of the United States to that which, 'a private individual' would have 'under like circumstances,'" and while section 2674 of the FTCA plainly states "[t]he United States shall be liable, respecting the provisions of this title relating to tort claims, in the same manner and to the same extent as a private individual under like circumstances . . .," the United States has enormous advantages which are not afforded to other private individuals or corporate defendants.

1. Limitations on Benefits of Waiver of Sovereign Immunity in FTCA

Federal district courts have exclusive jurisdiction over claims arising pursuant to the FTCA. They are required to apply the "whole law" of the state where the act or omission occurred which gives rise to liability, including that state's conflict of laws rules. However, regardless of what the "whole law" of the state is, the federal government retains certain distinct privileges. With regard to outer space activities, the most important of these privileges is that the FTCA does not permit claims against the government based upon strict liability or absolute liability theories such as actions based upon products liability, ultra-hazardous activities, or inherently dangerous activities. Negligence must be pleaded and proven. And even

44. 28 U.S.C. § 1346(b) (1982).
45. Richards v. United States, 369 U.S. 1, 10-15 (1961). The Court stated, "there is nothing in the legislative history that even remotely supports the argument that Congress did not intend state conflict rules to apply . . .." Id. at 14.
46. Laird v. Nelms, 406 U.S. 797, 799 (1972) (Stewart, J., dissenting). Justice Stewart noted that:

The rule announced by the Court today seems to me contrary to the whole policy of the Tort Claims Act. For the doctrine of absolute liability is applicable not only to sonic booms, but to other activities that the Government carries on in common with many private citizens. Absolute liability for injury caused by the concussion or debris from dynamite blasting, for example, is recognized by an overwhelming majority of state courts. A private person who detonates an explosion in the process of building a road is liable for injuries to others caused thereby under the law of most states even though he took all practicable precautions to prevent such injuries, on the sound principle that he who creates such a hazard should make good the harm that results. Yet if the employees of the United States engage in exactly the same conduct with an identical result, the United States will not, under the principle announced by the Court today, be liable to the injured party. Nothing in
though the doctrine of *res ipsa loquitur* has been held applicable to actions brought pursuant to the FTCA, the necessity of proving actual negligence cannot be overemphasized as a possible significant legal obstacle to recovery by domestic citizens, as compared to the liberal absolute liability regime extended to foreign nationals under the Liability Convention.

In addition, the federal government is not obligated to pay prejudgment interest on any award prior to judgment, and cannot be held liable for punitive damages regardless of the degree of recklessness or culpability of the government's conduct. These exceptions apply even if the applicable state law provides for prejudgment interest or punitive damages. The consequence of precluding prejudgment interest, even when applicable state law provides for realistic interest rates, is that any delays in litigating the action works in favor of the government. For example:

"[if] a five-year delay occurs between the date of the loss and the date of the trial or settlement, . . . claimants may lose as much as 50% of the real value of the dollars which they ultimately receive (five years later) due to inflation and the consequent decline of the purchasing value of the dollar."

Finally, in the majority of cases brought under the FTCA, a claimant does not have the right to trial by jury.

If the FTCA is construed under existing precedent to preclude recovery based on strict liability or absolute liability theories for disas...
ters occurring in the United States as a result of United States outer space activities, the result may be absurd, and contrary to any concept of justice and equity. This is illustrated by the following hypothetical example:

The United States attempts to launch a spacecraft into outer space, but, due to unexplained causes, it crashes in the United States. A & B are both injured in A's home. A is a United States citizen. B is a foreign citizen. No "negligent or wrongful act or omission of any employee of the government" can be proven. B brings his action pursuant to the Liability Convention where absolute liability is applicable. A is precluded from bringing his action pursuant to the Liability Convention, so he brings his action pursuant to the FTCA. He is precluded from recovery because he cannot plead and prove any "negligent or wrongful act or omission of any employee of the Government." B, as a foreign citizen, may proceed to institute his action through B's country under absolute liability principles. B recovers from the United States for his injuries.

Section 1346(b) of the FTCA sets forth strictly construed jurisdictional principles which a party or the court may raise sua sponte at any time. These may provide a further impediment to the domestic claimant. Under section 1346(b), the acts or omissions complained of must be caused by an employee of the United States Government. When the acts or omissions can be traced to members of the armed forces or any number of government employees, this requirement will be met. However, government-sponsored outer space activities necessarily involve many private contractors, subcontractors, and other non-government personnel. Confusion may arise as to whether a particular person or corporate entity whose act or omission was the proximate cause of a space-related accident was an "employee of the government."

Most modern-day courts have found that the issue of federal employment is to be determined by reference to federal law, on the ground that the states may not decide for the United States who is

52. Art. VII of the Liability Convention states that "[t]he provisions of this Convention shall not apply to damage caused by a space object of a launching State to: a) Nationals of that launching State ... ." Liability Convention, supra note 3, at 2395, T.I.A.S. No. 7762, 961 U.N.T.S. at 191.
54. See Fed. R. Civ. P. 12(h)(3) which provides that "[w]henever it appears by suggestion of the parties or otherwise that the court lacks jurisdiction of the subject matter, the court shall dismiss the action." Id.
55. 28 U.S.C. § 1346(b).
56. Id. § 2671. By definition, an employee of the government includes "officers or employees of any federal agency, members of the military or naval forces of the United States ... and persons acting on behalf of a federal agency in an official capacity temporarily or permanently in the service of the United States, whether with or without compensation." Id.
and who is not an employee of the federal government.\textsuperscript{57} While section 2671 of the FTCA specifically excludes "contractors" from the definition of a federal agency of the government, and thus excludes them from the scope of the FTCA, that section does not indicate when a person or corporation is a contractor rather than an employee.\textsuperscript{58}

Similarly, one may also have to determine whether a specific person is an employee of the United States Government, or an independent contractor. The primary factor is control over the work of such an individual.\textsuperscript{59} If the federal government has such control or a right to control, the person ordinarily will be considered an employee of the government. The mere fact that some entity other than the government pays the individual, or that the government owns the property which the person uses negligently, is not determinative of the status of that person.\textsuperscript{60}

Another jurisdictional prerequisite for maintaining a suit against the United States for loss caused by an employee of the government is that the acts or omissions complained of must have taken place while the employee was acting within the scope of his office or employment.\textsuperscript{61} State \textit{respondeat superior} law is applicable in determining scope of employment questions.\textsuperscript{62} For example, the FTCA expressly provides that a serviceman, acting in the line of duty, is analogous to a private employee acting in the scope of his employment under the FTCA.\textsuperscript{63} Such cases can also be decided under applicable state \textit{respondeat superior} law.\textsuperscript{64}

In a suit for damages or injuries arising from outer space activities,
it may be very difficult to determine: (1) whether an alleged tortfeasor was an employee of the government; (2) whether the tort arose from the actions of a federal agency; and/or (3) whether the negligence occurred within the scope of employment. Despite these difficulties, domestic victims and claimants will be required to meet the strictly construed jurisdictional provisions in order to maintain an action under the FTCA. Foreign nationals, however, will not be subject to such burdens; they are afforded a determination of absolute liability whenever damaged, injured, or killed by the United States Government or United States non-government, or private activities, as set forth under the broad provisions of the Liability Convention.

2. Exceptions to FTCA’s Waiver of Sovereign Immunity
   a. The Military Personnel Exception

   Further, in *Feres v. United States*, the Supreme Court judicially created an exception to the waiver of sovereign immunity established by the FTCA, holding that Congress had not intended to waive sovereign immunity with respect to injury or death arising out of an activity incident to military service. Thus, servicemen, while on duty, are precluded from suing the United States Government for damages, injuries, or death.

   Therefore, in any space-related accident, United States military servicemen cannot recover damages from the government for injuries incurred while on active duty. “Active duty” has been interpreted to encompass those injuries sustained in the course of an activity incident to service, and subject to military orders and discipline. Active duty does not include furloughs or off-duty injuries.

   A recent Supreme Court decision, *United States v. Johnson*, has extended this curb on legal actions by military personnel, to include negligence committed by a civilian federal employee even though that employee was working in a separate branch of government. The five-to-four decision overturned a federal court of appeals ruling that

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66. Charland v. United States, 615 F.2d 508 (9th Cir. 1980) (barring parent’s claim for wrongful death of son killed while on leave, but during voluntary participation in naval training exercises).
67. Brooks v. United States, 337 U.S. 49 (1949) (allowing member of armed services to recover for injuries suffered during activities not incident to service).
the widow of a United States Coast Guard helicopter pilot killed on duty could sue under the FTCA.

In Johnson, the widow claimed that her husband's death was caused by the negligence of a civilian air traffic controller employed by the Federal Aviation Administration, and thus her action was not barred under the Feres Doctrine. The Johnson Court stated that the military status of the person who allegedly caused the accident was not the "crucial" factor in such suits. Rather, the doctrine was meant to "bar all suits on behalf of service members against the Government based upon service-related injuries." Dissenting Justice Scalia, joined by several of the Court's more liberal members, sharply criticized the Feres Doctrine, stating: "Feres was wrongly decided and heartily deserves the 'widespread, almost universal criticism' it has received." Justice Scalia added, "[h]ad Lieutenant Commander Johnson been piloting a commercial helicopter when he crashed into the side of a mountain, his widow and children could have sued and recovered for the loss." Thus, Johnson heightens the possible inconsistencies which may occur in an outer space or space-related accident.

b. The Civilian Federal Employees Exception

Civilian governmental employees injured while on duty are also precluded from maintaining a cause of action against the United States under the FTCA. The government provides specific remedies for injured employees under the Federal Employees' Compensation Act (FECA) and the Longshore and Harbor Workers' Compensation Act (LSHWCA). These statutes contain exclusive governmental liability provisions, and the prohibitions against suit contained therein extend to relatives or other parties attempting to claim damages through the injured party. Section 8116(c) of the FECA states, "[t]he liability of the United States or an instrumentality thereof . . . with respect to the injury or death of an employee is exclusive and

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69. Id. at 2065. For a discussion of the Feres Doctrine, see Intramilitary Civil Tort Immunity: A Constitutional Justification, 15 PEPPERDINE L. REV. 301 (1988).
70. Johnson, 107 S. Ct. at 2067.
71. Id. at 2074 (Scalia, J., dissenting) (quoting In re "Agent Orange" Product Liability Litigation, 580 F. Supp. 1242, 1246 (E.D.N.Y.), appeal dismissed, 745 F.2d 161 (9th Cir. 1984)).
74. 5 U.S.C. § 8116(c); see also Lockheed Aircraft Corp. v. United States, 460 U.S. 192 (1983) (corporation which sought indemnity for damages arising from crash of aircraft operated by United States Air Force did not fall within the limitations of section 8116(c)). The Lockheed Court held that FECA was intended to "protect the Government from suits under statutes, such as the Federal Tort Claims Act . . . ." Lockheed, 460 U.S. at 194. But this provision must be construed to apply only to persons related to the injured party.
instead of all other liability of the United States or the instrumental-
ity to the employee . . . .”

Where FECA applies, the federal employee is precluded from seek-
ing recovery against the United States or a fellow worker.76 The
FECA only provides relief when a personal injury is sustained in the performance of the federal worker’s duty.77 If the federal employee
is injured while off-duty, the FECA does not apply and that em-
ployee may seek compensation against the United States under the
FTCA.78 Therefore, claims for injuries against the United States by
federal employees or their relatives, arising from outer space activi-
ties, cannot be pursued if the employee was injured in the perform-
ance of his duty.

The possible injustices of judicially created exceptions, which are
determined by such arbitrary criteria as the victim’s occupation, are
evidenced by the following hypothetical situation:

Suppose NASA attempted to launch a KH-11 military surveillance satellite for the United States Air Force. Due to negligence attributable to a NASA employee, the satellite, while off course is not destroyed properly, resulting in debris hitting an army base in South Carolina (this base and its personnel in no way aided or participated in the launch), a United States Post Office, and a privately owned shoe factory.

Under present law, all non-United States military persons injured as a re-
sult of such an accident could sue (or, in the case of death, the executor may bring suit) the United States Government for the maximum amount of dam-
ages available under applicable law. However, United States citizens would have to plead and prove negligence, while foreign nationals would be afforded absolute liability. All United States postal employees on duty would be pro-
hibited from recovering under applicable laws, but would have to be content
with recovery under federal workers’ compensation-type laws. Any customers in the post office could institute and recover under applicable law, however. Customers who are United States citizens, however, would have to plead and prove negligence under the FTCA. Customers who are foreign nationals
would be afforded the benefit of absolute liability under the FTCA.

All United States servicemembers and federal employees on the army base on active duty would be prohibited from maintaining suit against the United States Government, and they and their families limited to relatively minimal amounts of recovery for any injury, damages, or deaths. Off-duty federal em-
ployees and possibly furloughed or off-duty service-personnel injured on the base, and civilians visiting the base (or in the post office as customers) could
maintain an action against the United States government to attempt to re-
cover maximum compensatory damages permitted by law.

75. 5 U.S.C. § 8116(c) (emphasis added).
76. Gilliam v. United States, 407 F.2d 818 (6th Cir. 1969), rev’d 264 F. Supp. 7 (E.D. Ky. 1969) (holding that FECA was exclusive remedy for personal injuries by deputy federal marshal assigned to accompany second federal marshal on a trip).
77. 5 U.S.C. § 8102(a) (compensation for disability or death of employee).
78. See supra note 72 and accompanying text.
c. Statutory Exceptions

The FTCA also contains twelve specific exceptions\(^\text{79}\) to the government's waiver of sovereign immunity, including, but not limited, to: (1) the discretionary function exclusion;\(^\text{80}\) (2) any claim for which a remedy is provided in admiralty;\(^\text{81}\) (3) "any claim arising out of assault, battery, false imprisonment, . . . malicious prosecution, abuse of process, libel, slander, . . . deceit, or interference with contract [sic] rights; . . . "\(^\text{82}\) (4) "any claim arising out of combatant activities of the military, or naval forces, or the Coast Guard, during time of war";\(^\text{83}\) and/or (5) "any claim arising in a foreign country."\(^\text{84}\) Although these exceptions are usually asserted by the government when answering a claimant's complaint, as a practical matter, these defenses are jurisdictional, and can be appropriately raised at any time during the litigation.\(^\text{85}\) Foreign nationals are not subject to these exceptions under the absolute liability provisions of the Liability Convention.

By far the most confusing, controversial, and litigated exception is the discretionary function exception, which bars:

Any claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.\(^\text{86}\)

Nowhere in the FTCA is the "discretionary function" defined, and the legislative history\(^\text{87}\) of the Act provides very little guidance. The leading case construing this exception is Dalehite v. United States.\(^\text{88}\) While Dalehite is considered the landmark decision in this area, it is also the cause of much confusion because of the Supreme Court's unduly broad language and refusal to precisely define the limits of the discretionary exception. Dalehite involved an action to recover damages for a death resulting from an explosion which occurred after the Government had loaded ships with combustible fertilizer. The complaint alleged the United States was negligent in its adoption of the

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\(^{80}\) Id. § 2680(a).

\(^{81}\) Id. § 2680(d).

\(^{82}\) Id. § 2680(h).

\(^{83}\) Id. § 2680(j).

\(^{84}\) Id. § 2680(k).


\(^{88}\) 346 U.S. 15 (1953).
plan to export the fertilizer, in its contracting for the fertilizer's manufacturer, and in handling the shipment and fighting the subsequent fire. The Supreme Court held that the case was barred by the discretionary function, finding that the federal employees involved were following "a plan developed at a high level under a direct delegation of plan-making authority from the apex of the Executive Department."  

The Court, in discussing the discretionary function exception, stated that it covers "all employees exercising discretion," and that this includes the "discretion of the executive or the administrator to act according to one's judgment of the best course . . . ." "It also includes determinations made by executives or administrators in establishing plans, specifications or schedules of operations," as well as the acts of subordinates in carrying out these plans. But the Supreme Court concluded that the exception did not include, for example, the negligent conduct of an employee in an automobile accident.

While the Supreme Court defined the two extreme limits of the discretionary function exception, it refused to define precisely where discretion ends and liability begins. The Court simply stated that "where there is room for policy judgment and decision there is discretion." The search for a more precise definition of this exception by lawyers, scholars, and courts, has led to a fertile source of case law, much of which is inconsistent and confusing.

A majority of courts, however, seem to have adopted a "planning level versus operational level" test in applying this exception to particular fact situations. The Court in Swanson v. United States provided guidance for the general application of this test:

Although portions of the Dalehite opinion are no longer controlling, the planning level—operations level distinction has been adopted by several circuits

89. Id. at 40.
90. Id. at 33.
91. Id. at 34.
92. Id. at 35-36.
93. Id. at 36.
94. Id. at 34.
95. Id. at 35. The Court stated that "[i]t is unnecessary to define, apart from this case, precisely where discretion ends." Id.
96. Id. at 36.
In a strict sense, every action of a government employee, except perhaps a conditioned reflex action, involves the use of some degree of discretion. The planning level notion refers to decisions involving questions of policy, that is, the evaluation of factors such as the financial, political, economic, and social effects of a given plan or policy. For example, courts have found that a decision to reactivate an Air Force Base, . . . or to change the course of the Missouri River, . . . or to decide whether or where a post office building should be built in Madison, Wisconsin, . . . are on the planning level because of the necessity to evaluate policy factors when making those decisions.

The operations level decision, on the other hand, involves decisions relating to the normal day-by-day operations of the government. Decisions made at this level may involve the exercise of discretion but not the evaluation of policy factors. For instance, the decision to make low level plane flights to make a survey, . . . or the operation of an air traffic control tower, . . . or whether a handrail should be installed as a safety measure at the United States Post Office in Madison, Wisconsin, . . . involve the exercise of discretion but not the evaluation of policy factors.99

This planning level versus operational level test is relevant in almost every case involving governmental involvement. When a planning level decision has been made, there are operational aspects to then be carried out; there are also details to be implemented by subordinate personnel. Once a planning level decision has been made, the government may then be liable for any negligence in carrying out the decision. In Pierce v. United States,100 an action against the United States under the FTCA for injuries sustained by a lineworker in an electrical accident at a government ordinance works, the Court said:

Once the decision was made to construct substations and bring in power, all of the discretion required had already been exercised. Therefore, it became the duty of the government and its agents and employees to exercise due care in carrying out the program decided upon. The complete failure to do so is outside the protection afforded the discretionary functions already exercised and results in liability on the part of the government.101

In Indian Towing Co. v. United States,102 an action against the government for failure to properly maintain a lighthouse, the Supreme Court held the United States liable for negligently performing a task it voluntarily undertook in its discretion. The basis of the holding is that, while it may be discretionary on the part of the government to undertake a task, once a task is undertaken and relied upon, the government is held to the same standard of care as private entities in the manner in which the task is carried out.103 The determination of reasonableness in this situation is purely a matter of state law.104

This rule has been applied in a number of situations. For example,

99. Id. at 219-20 (citations omitted).
101. Id. at 731 (emphasis added).
103. Id. at 69.
once a rescue operation was undertaken, it had to be performed with
due care.\textsuperscript{105} Also, once the government had decided to place pilings in
a canal, the government had an obligation to use care to make sure
that the submerged pilings did not damage boats.\textsuperscript{106} Similarly, the
United States has consented to be sued for the negligence of its air
traffic control employees in the operations phase of their duties with
respect to the guiding and controlling of aircraft during take-off,
while in the air, during landing, and while taxiing at airports.\textsuperscript{107}
From this analysis, it can be surmised that the FAA could be held
liable for negligent acts or omissions in failing to separate aircraft
from or adequately warn aircraft about outer space launches occur-
ring through FAA-controlled airspace. This analysis may also apply
to other governmental agencies which supervise, undertake, and op-
erate launch activities in restricted airspace, such as NASA or the
Department of Defense.

It may also be concluded that if the United States maintains a role
in the separation of outer space vehicles from outer space objects and
debris, in order to maintain safety \textit{which becomes relied upon},\textsuperscript{108} the
federal government may be liable for any breach of reasonable care
in the performance of this operation which proximately causes inju-
ries. In other words, if the United States performs space traffic con-
trol operations, then the United States may also become the target of
potential lawsuits arising out of any act or omission which is relied
upon and which proximately causes injuries under the reasoning set
forth in \textit{Indian Towing}.

\textsuperscript{105} United States v. Lawter, 219 F.2d 559 (5th Cir. 1955).
\textsuperscript{106} Everitt v. United States, 204 F. Supp. 20 (S.D. Tex. 1962) (action under Federal
Tort Claims Act for damage to shrimp boat resulting from negligent failure of Corps of
Engineers to remove submerged pilings).
\textsuperscript{107} Spaulding v. United States, 455 F.2d 222 (9th Cir. 1972) (wrongful death action
brought by administratrix of decedent's estate alleging negligence of the United States
in failing to warn pilot of bad weather conditions during flight of civil aircraft), \textit{aff['}g
Michelmore v. United States, 299 F. Supp 1118 (C.D. Cal. 1969); American Airlines,
Inc. v. United States, 418 F.2d 180 (5th Cir. 1969) (wrongful death action against the
United States alleging negligence of the Federal Aviation Agency and Weather Bureau
during landing of civilian aircraft); Richardson v. United States, 372 F. Supp. 921 (N.D.
Cal. 1974) (wrongful death action brought alleging negligence of United States employ-
ees during landing of civilian aircraft).

\textsuperscript{108} See generally Covault, \textit{Center Set for Soviet Space Monitoring}, \textit{Av. Week &
Sp. Tech.}, Mar. 28, 1983 at 56. Space Command states, "In order for us to keep every-
thing separated in space, we are going to become the traffic cop." \textit{Id.} at 57. \textit{See also}
21, USAF Lt. Col. William Bowers, space defense director for the Space Defense Oper-
ations Centers (SDOC), "likened the current role of the [SDOC] to that of early U.S.
air traffic control." \textit{Id.}
The United States Air Force, through NORAD/Space Command is responsible for United States space traffic monitoring activities.\textsuperscript{109} Collision avoidance is already performed by NORAD for Shuttle Orbiter missions.\textsuperscript{110} NORAD performs a Computation of Miss Between Orbits (COMBO), which is to assure that during the launch, and while in orbit, there is a safe separation of the shuttle from other objects. A comparison is made between the flight path of the shuttle and other space objects. A point of closest approach (PCA) is determined, and if a risk appears, the shuttle avoids the risk by maneuvering.\textsuperscript{111}

NORAD/Space Command has also performed a COMBO for private launches. For example, when the Space Services of America launched its CONESTOGA I rocket, NORAD/Space Command performed a COMBO to avoid possible collision with orbiting satellites.\textsuperscript{112} It would appear that while NORAD/Space Command has no duty to serve as a "space traffic controller," once it undertakes this task, any failure to adequately monitor and warn about inadequate separation or any other potentially dangerous situation could result in liability under the reasoning set forth in \textit{Indian Towing}.

However, present United States space-tracking facilities are of a predominantly military nature, \textit{with heavy emphasis on national security}. Consequently, government attorneys may successfully shield the United States from liability under yet another exception—the judicially construed "national security" exception of the FTCA.

d. The "National Security" Exception

Various courts have held that the United States Government is accorded very broad discretion in actions which involve national security. An example of this broad discretion is illustrated by the Korean Airlines Disaster of September 1, 1983, which involved the deaths of 269 people when KAL flight 007, en route to Kimpo Airport, Seoul, South Korea from Kennedy International Airport, New York, was shot down by Soviet fighter aircraft.\textsuperscript{113} In subsequent litigation, two groups of plaintiffs claimed that the United States "negligently"

\begin{footnotes}
\footnotetext[0]{109}{Reynolds, \textit{supra} note 104, at 107.}
\footnotetext[0]{110}{W. Wirin, \textit{The Sky is Falling 3} (paper presented at the Thirty-fifth Congress of the International Astronautical Federation Colloquium on Cooperation in Space, held in Lausanne, Switzerland, by the International Institute of Space Law, October 8-13, 1984).}
\footnotetext[0]{111}{\textit{Id.}}
\footnotetext[0]{112}{A. Dula, \textit{The People of the USA and USSR Must Work Together to Establish Space Industry} 323 (paper presented at proceedings of the Twenty-sixth Colloquium on the Law of Outer Space held in Budapest, Hungary, October 10-15, 1983).}
\footnotetext[0]{113}{During its flight, KAL 007 deviated from its assigned international route of Flight R20, which it was required to follow after departure from Anchorage, Alaska while en route to Seoul, Korea. The failure of Flight 007 to adhere to its assigned

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deployed military aircraft in the vicinity of the flight path of Flight 007 and that the government should have utilized its capabilities to warn KAL 007 that it was headed for danger.114

The United States Government brought motions to dismiss the plaintiff’s actions and to enter summary judgment as to all claims based upon the United States’ providing air traffic services and the failure to warn of any impending danger. The Government asserted that these allegations were superseded by national security considerations.115 The court agreed with the Government:

[U]nder the doctrine formulated in the landmark decision, Baker v. Carr, plaintiffs may not present these claims against the government based upon the decisions of the military concerning the national security. . . . To the extent that plaintiffs’ claims suggest that the government possesses capabilities which it could have utilized to warn KAL 007 but chose not to utilize, the claims shall be dismissed. The failure to adopt a policy to utilize available equipment and procedures for the purposes and in the manner plaintiffs suggest is a basic policy decision. Since such alleged negligence is not based upon “imperfectly executing a federal program established either by an act of Congress or a federal regulation” it is not actionable.116

Even though the District Court dismissed the plaintiffs’ claims against the United States based upon the alleged deployment of military aircraft in the vicinity of KAL 007 and denied the United States’ motion for summary judgment and to dismiss, the court’s reasoning with regard to national security is significant. Any suit based on the United States Government’s failure to warn of a dangerous situation in outer space will undoubtedly encounter similar reasoning. Justice Department attorneys could defend such cases by asserting that any warning issued by NORAD/Space Command regarding an impending dangerous situation in space would involve a policy decision: whether not to warn, or violate national security. The bottom line is

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flight path resulted in its passage over the Kamchatka Peninsula, the Sea of Okhotsk, Sakhalin Island, and the Sea of Japan.

The Union of Soviet Socialist Republics (U.S.S.R.) controlled the airspace over the Kamchatka Peninsula, the Sea of Okhotsk, and Sakhalin Island. Prior to the occurrence, the U.S.S.R. had published warnings that aircraft flying in that airspace might be fired upon without warning. The U.S.S.R. dispatched jet fighters to intercept KAL Flight 007. Flight 007 was struck by one or more explosive missiles fired by U.S.S.R. interceptor aircraft which caused the craft to crash into the Sea of Japan. See Pearson, K.A.L. 007, What the U.S. Knew and When We Knew It, THE NATION, Aug. 18, 1984, at 105.

114. For an excellent review of possible United States Government involvement in this tragic accident, see id. at 18-25.


116. Id. at 17,944 (citation omitted).
that courts are very hesitant to attach liability to decisions of the United States Government which may involve national security.

e. The Discretionary Exception

The discretionary exception provides still another shield for the United States Government. It precludes liability when United States citizen-residents are injured from an outer space or space-related accident, if such accident was due to "policy level" decisions or for "national security" reasons.¹¹⁷ These exceptions should undoubtedly be construed strictly against the United States Government when innocent, unrelated persons are involved. However, further delay while this "grey area" is being defined are inevitable. During this delay, prejudgment interest is not allowed to compensate the victims. The absurdity of this situation is further compounded when one considers that should foreign nationals happen to be injured, they would be afforded absolute liability under the Liability Convention and do not have to deal with these nebulous exceptions when seeking redress from the United States Government for its outer space and space-related activities, or for those of its private agents.

f. The "Foreign Country" Exception

Another possible defense which could be raised by the Justice Department in defending an otherwise actionable claim against the United States Government pursuant to the FTCA for torts resulting from outer space activities is the "foreign country" exception.¹¹⁸ Legislative history and case law indicate that the rationale behind this exception is to prevent the United States Government from being subjected to liability under the law of a foreign power. While the resolution of this issue with regard to the legal status of outer space has not yet arisen, the underlying rationale for the exception would suggest that outer space will not be construed as a "foreign country" under section 2680(k), since outer space, per se, is not subject to the laws of a foreign power and is indeed "sovereignless."¹¹⁹ However, this conclusion is not unchallengable. It cannot be summarily con-

¹¹⁷. It is uncertain how and whether these exceptions would apply to a space disaster arising from the testing, research and development of President Reagan’s proposed Strategic Defense Initiative, or "Star Wars" program. However, any foreign nationals injured would have no cause for concern, since they would have available an absolute liability regime, irrespective of these exceptions to the FTCA.

¹¹⁸. 28 U.S.C. § 2680(k) (1965) (exempts from FTCA coverage "any claim arising in a foreign country").

¹¹⁹. See Treaty on Principles, supra note 9, at 2412-13, T.I.A.S. No. 6347, 610 U.N.T.S. at 207-08. Article II states: "Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." Id.; see also Beattie v. United States, 756 F.2d 91 (D.C. Cir. 1984).
cluded that Congress intended to extend a grant of sovereign immunity to the judicially untested area of outer space, especially since the area was not specifically included in the waiver of immunity. At any rate, the conclusion that it was intended to be immunized overlooks the unlikelihood that outer space was even contemplated at the time of drafting of the waiver.

Case law interpreting section 2680(k) reveals the actual parameters of the exception. The courts have interpreted the foreign country exception to apply to torts arising solely in territory where permanent sovereignty ultimately lies with another nation. However, underlying this “sovereignty test” is a determination by the courts about whether foreign law governs the tort in question. If United States law is applicable, then the “foreign country” exception is abrogated by the courts, regardless of the fact that the actual injury occurred in a foreign country. A line of cases holds the foreign country exception inapplicable, regardless of the fact that the injuries or the accident occurred in a foreign country. These cases interpret the “arising in” language, and conclude that this language directs courts to look to the place where the act or omission took place in determining the law where the tort “occurs,” not where the act or omission had its “operative effect,” (i.e., where the actual injury or accident occurred). These decisions hold the foreign country exception inapplicable even though the accident or injury occurred in a foreign country. Again, the key to these decisions appears to be a determination of whether United States or foreign law governs the resolution of the case. This body of cases illustrates that an FTCA claim may arise in the United States, because the negligent act or omission occurred in the United States, even though the act or omission had its “operative effect” elsewhere (i.e., the injury occurred in a foreign country).

This principle is further supported by cases arising from aviation crashes occurring in foreign countries. For instance, in In re Paris Air Crash of March 3, 1974, the court held that if the negligent acts at issue occurred in the United States, but the operative effect (an

120. See supra note 118.
121. See, e.g., Sami v. United States, 617 F.2d 755 (D.C. Cir. 1979) (holding a claim against the United States arising from inaccurate message sent by Chief of United States National Control Bureau, resulting in wrongful detention of plaintiff by German officials, was not barred by the FTCA).
122. Leaf v. United States, 588 F.2d 733 (9th Cir. 1978) (applying the FTCA to air crash occurring in Mexico); In re Paris Air Crash of March 3, 1974, 399 F. Supp. 732, 737 (C.D. Cal. 1975) (FTCA applied to air crash which occurred in France).
airplane crash) occurred in a foreign country, the foreign country exclusion had no application. The case arose out of the crash of a Turkish Air Lines DC-10 aircraft in France that took the lives of 346 people. The claims against the United States were based upon the allegedly negligent certification or inspection of the aircraft by the Federal Aviation Administration. The plaintiffs asserted that these acts of negligence occurred in the State of California. In ruling against the United States on this issue, the District Court stated:

Under the FTCA, a tort claim arises at the place where the negligent act or omission occurred and not where the negligence had its operative effect. . . . Thus, none of the claims against the United States for death, as alleged in the complaints, is a "claim arising in a foreign country."\(^{124}\)

These "operative effect" cases relate not so much to the definition of "foreign country," as to the meaning of "arising in." They determine that "arising in" does not necessarily refer to the situs of the injury, but to the situs of the negligence.

Therefore, it can be concluded that the determination of whether the foreign country exception applies revolves around sovereignty over the cause of action—is the cause of action subject to United States law or the law of another country? Since liability is to be determined pursuant to the law where the tort arises, an action arising solely in a foreign country would be barred under the foreign country exception. Consequently, should the injury/damage caused by United States Government personnel arise solely in foreign territory or on a non-United States registered space object (which would be subject to foreign law), then it is possible that this exception will be applicable to bar suit under the FTCA, absent any underlying negligence by the United States occurring outside of the foreign country or foreign space objects. This reasoning also supports the general proposition that the foreign country exception will not be a valid defense for the United States when suit is brought pursuant to the FTCA for liability arising out of government activities in outer space, even when the injuries occur in a foreign country.

In any event, should the foreign country exception be raised as a defense, even though it is later determined that the negligent act or omission leading to the foreign accident occurred within the United States, inevitable delay and litigation will again result. The Liability Convention contains no such "foreign country" exception to the imposition of absolute liability for United States Government or private United States outer space activities.

IV. SUITS IN ADMIRALTY

Section 2680(d) provides that the FTCA does not apply to any

\(^{124}\) Id. (emphasis in original).
claim for which a remedy is provided under the Suits in Admiralty Act (SIAA). The SIAA is a waiver of sovereign immunity of the United States for maritime activities resulting in liability against the government. Jurisdiction under the FTCA and SIAA are mutually exclusive. SIAA jurisdiction encompasses admiralty claims arising on navigable waters that bear a significant relationship to maritime activity. The SIAA generally applies to aviation accidents occurring over the high seas and may also be held to apply to outer space-related accidents occurring in airspace over the high seas or on the high seas if they bear a significant relationship to maritime activity.

In *Executive Jet Aviation v. City of Cleveland*, the Supreme Court announced what constitutes a "significant relationship to maritime activity" in order for jurisdiction to lie for aviation torts under federal courts' admiralty jurisdiction under SIAA. In *Executive Jet*, an aircraft accident occurred immediately after take-off when the jet engine ingested sea gulls, lost power, and fell into Lake Erie. The Supreme Court held that since the aircraft flight was scheduled to occur entirely within the United States, the sinking of the aircraft on navigable waters was merely fortuitous. The Court formulated a "locality plus" test in which both the locality of the tort and the activity involved are important.

It would appear that the Supreme Court's reasoning in *Executive Jet* would also apply to space torts occurring over or on navigable waters. However, the scope of admiralty jurisdiction is not fixed, but is restricted or enlarged as the law develops. The question of whether space torts in general are within the jurisdiction of admiralty or civil law is still untested. While it is presently uncertain whether outer space activities will be considered as falling within the scope of admiralty jurisdiction, it appears that given the Supreme Court's recent pronouncement on the dissimilarity of most aviation torts to maritime activity, most space torts will not be considered cognizable in admiralty absent "a significant relationship to a maritime

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129. *Id.* at 272.
However, it must be remembered that at the beginning of the development of aviation in the United States, there was considerable opinion to the effect that “the entire ocean of air surrounding the earth” was within admiralty jurisdiction. Therefore, all flights through the air medium were within admiralty jurisdiction. While this theory never received general acceptance, it is possible that such reasoning may be attempted by advocates who see advantages in the application of admiralty law to their particular cases. However, such a general argument, absent specific facts linking the tort to maritime activities, appears unlikely to succeed in modern times.

Similarly, these advocates may also assert that Congress has recently extended the federal courts’ special maritime and territorial criminal jurisdiction under 18 U.S.C. section 7(6) to include:

Any vehicle used or designed for flight or navigation in space and on the registry of the United States pursuant to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies and the Convention on Registration of Objects Launched into Outer Space, while that vehicle is in flight, which is from the moment when all external doors are closed on Earth following embarkation until the moment when one such door is opened on Earth for disembarkation or in the case of a forced landing, until the competent authorities take over responsibility for the vehicle and for the persons and property aboard.

These advocates may argue that civil law jurisdiction may also properly lie in admiralty. However, this argument is spurious in light of the fact that Congress previously extended the courts’ maritime criminal jurisdiction to include crimes committed on board aircraft in flight over the high seas. Civil jurisdiction for torts is still only proper in admiralty if they bear a significant relationship to maritime activity.

Additionally, the Supreme Court in Executive Jet effectively separated aeronautical torts from torts related to “waterborne vessels.” Such reasoning can easily be applied to space torts:

...Unlike waterborne vessels, [airplanes] are not restrained by one-dimensional geographic and physical boundaries. For this elementary reason, we conclude that the mere fact that the alleged wrong “occurs” or “is located” on or over navigable waters—whatever that means in an aviation context—is not of itself sufficient to turn an airplane negligence case into a “maritime tort.” It is far more consistent with the history and purpose of admiralty to require also that the wrong bear a significant relationship to traditional maritime activity. We hold that unless such a relationship exists, claims arising from air-

131. See supra note 128 and accompanying text.
132. See Wilson v. Transocean Airlines, 121 F. Supp. 85 (N.D. Cal. 1954) (wrongful death action resulting from crash of airplane on the high seas); see also 2 AM. JUR. 2D, Admiralty § 23 (1962).
136. Id. at 268-69.
plane accidents are not cognizable in admiralty in the absence of legislation to the contrary.

...It is true that in a literal sense there may be some similarities between the problems posed for a plane downed on water and those faced by a sinking ship. But the differences between the two modes of transportation are far greater, in terms of their basic qualities and traditions, and consequently in terms of the conceptual expertise of the law to be applied.

For the reasons stated in this opinion we hold that, in the absence of legislation to the contrary, there is no federal admiralty jurisdiction over aviation tort claims arising from flights by land-based aircraft between points within the continental United States.137

It is important to note that the Executive Jet decision was limited to flights by land-based aircraft between points within the continental United States. The Supreme Court in Executive Jet stated, and subsequent decisions have held, that admiralty jurisdiction will still lie for aviation accidents on international flights over the high seas,138 or other aviation activities which bear a significant relationship to maritime activity. Domestic flights between islands or between islands and mainland have been held to fall within admiralty jurisdiction.139

From this analysis, it would appear that most accidents involving outer space activities would not lie in admiralty, but rather in civil law.140 However, this conclusion has not, as yet, been tested by courts. Nevertheless, there are certain operations inherent in space activities which may be deemed to bear a significant relationship to maritime activities, namely, water-launch activities, splashdown activities, and Coast Guard and Navy safety, reconnaissance, and tracking activities. It is plausible that if an accident occurs during specific phases of certain outer space-related activities, the SIAA, and not the FTCA, will be applicable in an action against the federal government for damages, injuries, or death to third persons.141

137. Id. at 268-69, 274 (citations omitted).
138. Id. at 274; Roberts v. United States, 498 F.2d 520 (9th Cir.), cert. denied, 419 U.S. 1070 (1974) (involving airplane crash in navigable waters while approaching air base in Okinawa on flight between Los Angeles and Vietnam).
140. See generally Kelly v. Switch, 485 F.2d 520 (5th Cir. 1973), cert. denied, 416 U.S. 969 (1974) (rifle fire from land injuring passenger in boat on Mississippi River is of sufficient danger to maritime commerce to invoke admiralty jurisdiction); Hyden v. Krustling, 531 F. Supp. 468 (N.D. Fla. 1982) (wrongful death action arising from a land-based, privately owned plane into the Gulf of Mexico was not cognizable in admiralty).
141. See Kelly v. United States, 531 F.2d 1144 (2d Cir. 1976) (mere fact that land-
Whether an action is determined to properly lie in admiralty or in civil law could significantly affect the damages recoverable and the ultimate judgment. The subtle distinctions between law and admiralty would also affect any ultimate recovery for a space-related accident. In any event, because of perceived advantages by Justice Department or claimant attorneys in admiralty or law, delays will inevitably result while court decisions, appeals, and subsequent court decisions finally resolve the issue. This will result in further delay in compensating victims.

V. CONCLUSION

The inconsistencies of existing United States law and international law as applied to the United States Government or its agencies as defendants in outer space or space-related accidents which result in damages, injuries, or death to persons unrelated to the space activities, graphically illustrate the two-tiered approach to liability which exists today. Under this system, foreign nationals are provided with an absolute liability regime, while United States nationals are provided with a strictly construed and narrowly defined negligence regime riddled with exceptions and loopholes. The present alternative liability regimes may lead to confusion and conflicting results. Unquestionably, there is a need for uniformity, consistency, and predictability. Inconsistency, confusion, and uncertainty will inevitably result in delay through seemingly endless litigation. Outer space activity is here to stay, and in time will certainly increase. Now is the time to define the laws and establish a uniform process for handling outer space and space-related accident; not after tragedy strikes, and the inconsistency and resulting injustice are revealed by application of the present systems to innocent and unwary victims.

While many of the problems presented in this Article are unique to the United States Government as a defendant, many of the issues presented, and many more not presented, could be applicable to other entities, such as private contractors, subcontractors, operators, and other potential defendants in an outer space or space-related activity. Of course, these parties normally will have already taken into account the potential occurrence of accidents by including risk allocation provisions in their contracts among themselves. They will also undoubtedly procure the necessary insurance and excess insurance

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based acts or omissions contributed to drowning did not by itself preclude admiralty jurisdiction). Contra Teachy v. United States, 363 F. Supp. 1197 (M.D. Fla. 1973) (unsuccessful Coast Guard rescue attempt of plaintiff from sinking boat by use of helicopter was not function traditionally performed by water vessels, and thus not subject to admiralty jurisdiction); see also Annotation, What Constitutes Significant Relationship to Traditional Maritime Activity to Support Federal Court's Admiralty Jurisdiction in Aviation Tort Cases, 30 A.L.R. FED. 759 (1976).
coverage. These entities may also pursue contractual indemnification by each other and by the United States Government. The nonparticipant victims of such activities, however, do not have these opportunities; they are limited to what the law presently provides. With regard to United States citizens, this involves wrangling with a myriad of inconsistent laws, all of which entail different substantive and procedural rules, and contain varying exceptions to recovery and recoverable elements of damages. Because of these variances, inconsistencies and absurdities will inevitably arise. This, in turn, would lead to an escalation of litigation costs, delay in the resolution of the issues, and the avoidance of prompt, fair, and just compensation to victims. All of this demonstrates that the application of the numerous tort recovery systems of various states and countries to a possible outer space accident which transcends arbitrary state and national boundaries, and boundaries based on land and water, is absurd.
APPENDIX

CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS (The Liability Convention)


THE STATE PARTIES TO THIS CONVENTION,

RECOGNIZING the common interest of all mankind in furthering the exploration and use of outer space for peaceful purposes,

RECALLING the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,

TAKING INTO CONSIDERATION that, notwithstanding the precautionary measures to be taken by States and international inter-governmental organizations involved in the launching of space objects, damage may on occasion be caused by such objects,

RECOGNIZING the need to elaborate effective international rules and procedures concerning liability for damage caused by space objects and to ensure, in particular, the prompt payment under the terms of this Convention of a full and equitable measure of compensation to victims of such damage,

BELIEVING that the establishment of such rules and procedures will contribute to the strengthening of international cooperation in the field of the exploration and use of outer space for peaceful purposes,

HAVE AGREED ON THE FOLLOWING:

Article I

For the purposes of this Convention:

(a) The term “damage” means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural, or juridical, or property of international inter-governmental organizations;

(b) The term “launching” includes attempted launching;

(c) The term “launching State” means:

(i) A State which launches or procures the launching of a space object;

(ii) A State from whose territory or facility a space object is launched;

(d) The term “space object” includes component parts of a space object as well as its launch vehicle and parts thereof.
Article II

A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight.

Article III

In the event of damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching 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.

Article IV

1. In the event of damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State, and of damage thereby being caused to a third State or to its natural or juridical persons, the first two States shall be jointly and severally liable to the third State, to the extent indicated by the following:

   (a) If the damage has been caused to the third State on the surface of the Earth or to aircraft in flight, their liability to the third State shall be absolute;

   (b) If the damage has been caused to a space object of the third State or to persons or property on board that space object elsewhere than on the surface of the Earth, their liability to the third State shall be based on the fault of either of the first two States or on the fault of persons for whom either is responsible.

2. In all cases of joint and several liability referred to in paragraph 1 of this Article, the burden of compensation for the damage shall be apportioned between the first two states in accordance with the extent to which they were at fault; if the extent of the fault of each of these States cannot be established, the burden of compensation shall be apportioned equally between them. Such apportionment shall be without prejudice to the right of the third State to seek the entire compensation due under this Convention from any or all of the launching States which are jointly and severally liable.
Article V

1. Whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused.
2. A launching State which has paid compensation for damage shall have the right to present a claim for indemnification to other participants in the joint launching. The participants in a joint launching may conclude agreements regarding the apportioning among themselves of the financial obligation in respect of which they are jointly and severally liable. Such agreements shall be without prejudice to the right of a State sustaining damage to seek the entire compensation due under this Convention from any or all of the launching States which are jointly and severally liable.
3. A State from whose territory or facility a space object is launched shall be regarded as a participant in a joint launching.

Article VI

1. Subject to the Provisions of paragraph 2 of this Article, exoneration from absolute liability shall be granted to the extent that a launching State 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 a claimant State or of natural or juridical persons it represents.
2. No exoneration whatever shall be granted in cases where the damage has resulted from activities conducted by a launching State which are not in conformity with international law, including, in particular, the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Article VII

The provisions of this Convention shall not apply to damage caused by a 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.

Article VIII

1. A State which suffers damage, or whose natural or juridical per-
sons suffer damage, may present to a launching State a claim for compensation for such damage.
2. If the State of nationality has not presented a claim, another State may, in respect of damage sustained in its territory by any natural or juridical person, present a claim to a launching State.
3. If neither the State of nationality nor the State in whose territory the damage was sustained has presented a claim or notified its intention of presenting a claim, another State may, in respect of damage sustained by its permanent residents, present a claim to a launching State.

Article IX

A claim for compensation for damage shall be presented to a launching State through diplomatic channels. If a State does not maintain diplomatic relations with the launching State concerned, it may request another State to present its claim to that launching State or otherwise represent its interests under this Convention. It may also present its claim through the Secretary-General of the United Nations, provided the claimant State and the launching State are both Members of the United Nations.

Article X

1. A claim for compensation for damage may be presented to a launching State not later than one year following the date of the occurrence of the damage or the identification of the launching State which is liable.
2. If, however, a state does not know of the occurrence of the damage or has not been able to identify the launching State which is liable, it may present a claim within one year following the date on which it learned of the aforementioned facts; however, this period shall in no event exceed one year following the date on which the State could reasonably be expected to have learned of the facts through the exercise of due diligence.

Article XI

1. Presentation of a claim to a launching State for compensation for damage under this Convention shall not require the prior exhaustion of any local remedies which may be available to a claimant state or to natural or juridical persons it represents.
2. Nothing in this Convention shall prevent a State, or natural or
juridical persons it might represent, from pursuing a claim in the courts or administrative tribunals or agencies of a launching State. A State shall not, however, be entitled to present a claim under this Convention in respect of the same damage for which a claim is being pursued in the courts or administrative tribunals or agencies of a launching State or under another international agreement which is binding on the States concerned.

Article XII

The compensation which the launching State shall be liable to pay for damage under this Convention shall be determined in accordance with international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organization on whose behalf the claim is presented to the condition which would have existed if the damage had not occurred.

Article XIII

Unless the claimant State and the State from which compensation is due under this Convention agree on another form of compensation, the compensation shall be paid in the currency of the claimant State or, if that State so requests, in the currency of the State from which compensation is due.

Article XIV

If no settlement of a claim is arrived at through diplomatic negotiations as provided for in Article IX, within one year from the date on which the claimant State notifies the launching State that it has submitted the documentation of its claim, the parties concerned shall establish a Claims Commission at the request of either party.

Article XV

1. The Claims Commission shall be composed of three members: one appointed by the claimant State, one appointed by the launching State and the third member, the Chairman, to be chosen by both parties jointly. Each party shall make its appointment within two months of the request for the establishment of the Claims Commission.
2. If no agreement is reached on the choice of the chairman within four months of the request for the establishment of the Commission, either party may request the Secretary-General of the United Nations to appoint the Chairman within a further period of two months.
Article XVI

1. If one of the parties does not make its appointment within the stipulated period, the Chairman shall, at the request of the other party, constitute a single-member Claims Commission.
2. Any vacancy which may arise in the Commission for whatever reason shall be filled by the same procedure adopted for the original appointment.
3. The Commission shall determine its own procedure.
4. The Commission shall determine the place or places where it shall sit and all other administrative matters.
5. Except in the case of decisions and awards by a single-member Commission, all decisions and awards of the Commission shall be by majority vote.

Article XVII

No increase in the membership of the Claims Commission shall take place by reason of two or more claimant States or launching States being joined in any one proceeding before the Commission. The claimant States so joined shall collectively appoint one member of the Commission in the same manner and subject to the same conditions as would be the case for a single claimant State. When two or more launching States are so joined, they shall collectively appoint one member of the commission in the same way. If the claimant States or the launching States do not make the appointment within the stipulated period, the Chairman shall constitute a single-member Commission.

Article XVIII

The Claims Commission shall decide the merits of the claim for compensation and determine the amount of compensation payable if any.

Article XIX

1. The Claims Commission shall act in accordance with the provisions of Article XII.
2. The decision of the Commission shall be final and binding if the parties have so agreed; otherwise the Commission shall render a final and recommendatory award, which the parties shall consider in good faith. The Commission shall state the reasons for its decision or award.
3. The Commission shall give its decision or award as promptly as possible and no later than one year from the date of its establishment, unless an extension of this period is found necessary by the Commission.

4. The Commission shall make its decision or award public. It shall deliver a certified copy of its decision or award to each of the parties and to the Secretary-General of the United Nations.

Article XX

The expenses in regard to the Claims Commission shall be borne equally by the parties, unless otherwise decided by the Commission.

Article XXI

If the damage caused by a space object presents a large scale danger to human life or seriously interferes with the living conditions of the population or the functioning of vital centers, the States Parties, and in particular the launching State, shall examine the possibility of rendering appropriate and rapid assistance to the State which has suffered the damage, when it so requests. However, nothing in this Article shall affect the rights or obligations of the States Parties under this Convention.

Article XXII

1. In this Convention, with the exception of Articles XXIV to XXVII, references to States shall be deemed to apply to any international inter-governmental organization which conducts space activities if the organization declares its acceptance of the rights and obligations provided for in this Convention and if a majority of the States members of the organization are States Parties to this Convention and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

2. States members of any such organization which are States Parties to this Convention shall take all appropriate steps to ensure that the organization makes a declaration in accordance with the preceding paragraph.

3. If an international inter-governmental organization is liable for damage by virtue of the provisions of this Convention, that organization and those of its members which are States Parties to this Convention shall be jointly and severally liable; provided, however, that:

   (a) Any claim for compensation in respect of such damage shall be first presented to the organization;

   (b) Only where the organization has not paid, within a period of six months, any sum agreed or determined to be due as com-
pensation for such damage, may the claimant State invoke the liability of the members which are States Parties to this Convention for the payment of that sum.

4. Any claim, pursuant to the provisions of this Convention, for compensation in respect of damage caused to an organization which has made a declaration in accordance with paragraph 1 of this Article shall be presented by a State member of the organization which is a State Party to this Convention.

Article XXIII

1. The provision of this Convention shall not affect other international agreements in force in so far as relations between the States Parties to such agreements are concerned.

2. No provision of this Convention shall prevent States from concluding international agreements reaffirming, supplementing or extending its provisions.

Article XXIV

1. This Convention shall be open to all States for signature. Any State which does not sign this Convention before its entry into force in accordance with paragraph (3) of this Article may accede to it at any time.

2. This Convention shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.

3. This Convention shall enter into force on the deposit of the fifth instrument of ratification.

4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Convention, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Convention, the date of its entry into force and other notices.

6. This Convention shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.
Article XXV

Any State Party to this Convention may propose amendments to this Convention. Amendments shall enter into force for each State Party to the Convention accepting the amendments upon their acceptance by a majority of the States Parties to the Convention and thereafter for each remaining State Party to the Convention on the date of acceptance by it.

Article XXVI

Ten years after the entry into force of this Convention, the question of the review of this Convention shall be included in the provisional agenda of the United Nations General Assembly in order to consider, in the light of past application of the Convention, whether it requires revision. However, at any time after the Convention has been in force for five years, and at the request of one third of the States Parties to the Convention, and with the concurrence of the majority of the States Parties, a conference of the States Parties shall be convened to review this Convention.

Article XXVII

Any State Party to this Convention may give notice of its withdrawal from the Convention one year after its entry into force by written notification to the Depositary Governments. Such withdrawal shall take effect one year from the date of receipt of this notification.

Article XXVIII

This Convention, of which the English, Russian, French, Spanish and Chinese texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Convention shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.