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Citizens Without a Forum: The Lack of an Appropriate and Consistent Remedy for United States Citizens Injured or Killed as the Result of Activity Above the Territorial Air Space

JAMES A. BECKMAN*

INTRODUCTION AND OVERVIEW

It was supposed to have been the most heralded space shuttle mission to date.¹ A crew of six astronauts and one high school teacher² was ready to ride the space shuttle Challenger off into new heights of space exploration and achievement. On January 28, 1986, the space shuttle Challenger lifted idyllically off the launch pad, seemingly well on its way out of the sunny blue Florida sky and onwards to the heavens. Yet, seventy-four seconds later, the space shuttle unexpectedly exploded,³ killing all aboard.⁴ Approximately six months later, on July

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¹ See William D. Marbach, *What Went Wrong?* NEWSWEEK, Feb. 10, 1986, at 32.

² After months of extensive searching, NASA announced in July 1985 that it had selected Sharon Christa McAuliffe, a high school social studies teacher, to serve as the first civilian crew member aboard a space shuttle mission. John N. Wilford, *Teacher is Picked for Shuttle Trip*, N.Y. TIMES, July 20, 1985, at 28.

³ Even after watching the explosion live on television, many did not initially believe the space shuttle had exploded. At the Kennedy Space Center, McAuliffe's husband, two children and parents silently watched the Shuttle turn into a fireball. A NASA official walked up to them and said, "The vehicle has exploded." The teacher's mother repeated the words as a question, "The vehicle has exploded?" Michael Seiler, *Shuttle Explodes, All 7 Die, Teacher on Board as Challenger Blows up on Liftoff, Reagan Postpones Future Flights Pending a Probe*, L.A. TIMES, Jan. 28, 1986 (late edition), at 1.

⁴ See William J. Broad, *The Shuttle Explodes*, N.Y. TIMES, Jan. 29, 1986, at A1; see also Ed Magnuson, *They Slipped the Surly Bonds of Earth to Touch the Face of God*, TIME, Feb. 10, 1986, at 24.

15, 1986, Ms. Jane Smith, the widow of the Challenger's pilot, filed a claim for more than \$15 million against the National Aeronautics and Space Administration ("NASA"), claiming NASA was negligent in the launch.⁵ The families of the six other victims all filed claims against NASA soon thereafter. Ultimately, six claims were settled by the Justice Department to avoid "litigation;"⁶ however, the original suit by Ms. Smith was not settled and was eventually unsuccessful in litigation.⁷

As space travel increases with the passing of each year,⁸ the Challenger accident serves as a poignant reminder of the need for consistent and adequate legal remedies. Indeed, with over 1,200 satellites in orbit, 3,500 pieces of debris being tracked by the North American Aerospace Defense Command, and increased missions to outer space, some lawyers believe that the proliferation of outer space "torts" is only a matter of time.⁹ It is no wonder that it has been reported, as early as

⁵ See Theresa M. Foley, *Family of Challenger Pilot Files \$15-Million Claim Against NASA*, AVIATION WEEK, July 21, 1986, at 29. This claim was later defeated in litigation. See *infra* note 7.

⁶ See *Four Families Settle Claims Over Shuttle*, CHI. TRIB., Dec. 30, 1986, at 1; see also *Justice Department Settles With Astronauts' Families*, CHRISTIAN SCIENCE MONITOR, Dec. 30, 1986, at 2. The military members' claims were technically deniable under the "Feres Doctrine," which is derived from a grouping of cases which prohibit service members from suing the Government under the Federal Tort Claims Act ("FTCA") when the injuries suffered were "incident to service." See *Feres v. United States*, 340 U.S. 135, 146 (1950). Federal civilians are likewise "FECA barred" from suing the Government for tort injuries under the FTCA by virtue of the exclusive provisions of the Federal Employees Compensation Act. See 5 U.S.C. § 8116(c) (1998). Upon reaching settlement in this case, a Justice Department spokesman stated that "the Department of Justice and the families are pleased that these settlements were achieved with concern for the dignity of all involved, and in a timely and nonadversarial manner without the need to engage in litigation." *Four Families Settle Claims Over Shuttle*, CHI. TRIB., Dec. 30, 1986, at 1. It was later disclosed that the settlement to the families of the astronauts exceeded seven and a half million dollars. See Warren E. Leary, *Families of 4 Astronauts Received \$7.7 Million in Shuttle Settlements*, N.Y. TIMES, Mar. 8, 1988, at 1.

⁷ For further information regarding the denial of Ms. Smith's claim in litigation, see *Court Refuses Challenger Pilot Case*, UPI, Feb. 20, 1990, at 2, in which it is reported that the U.S. Supreme Court refused to disturb a lower court decision that barred the family of Challenger space shuttle pilot Michael Smith from suing the government for wrongful death damages.

⁸ Indeed, one need not look back far in the history of space exploration for an example of the perils of space travel. For example, on June 25, 1997, an unmanned cargo ship collided with Mir Space Station in outer space. The cargo ship smashed into the side of the Mir Station, draining all air pressure from the damaged section and forcing the crew to seal the section from the rest of the craft. After the collision, both of the oxygen generators aboard the ship failed. Additionally, before the crash, in February 1997, the Mir's crew experienced a fire onboard the ship which filled the craft with smoke and fumes. Any of these incidents could have resulted in the injury or death of the Mir Station occupants, raising questions of compensation. See *Craft That Hit Mir is Destroyed; Cargo Ship Burns Up In Atmosphere*, CHI. TRIB., July 3, 1997, at 9; Michael Specter, *Principal Oxygen System Fails Aboard Calamity-Plagued Mir*, N.Y. TIMES, Aug. 6, 1997, at 1.

⁹ See Margaret B. Carlson, *Space Law Launches Increasing Number of Lawyers*, LEGAL TIMES, June 14, 1982, at 10.

1983, that "space law opens a new frontier for Justice Department Attorneys."¹⁰

This article explores avenues of redress (or lack thereof) when a U.S. citizen is the victim of a tort committed by a sovereign state in outer space. Both international law and U.S. domestic law are examined. An analysis of liability under international law includes, at a minimum, an examination of the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies ("1967 Outer Space Treaty"),¹¹ the 1972 Convention on International Liability for Damages Caused by Space Objects ("1972 Convention on Liability"),¹² and the customary international law¹³ doctrine of "diplomatic protection." The analysis of liability under U.S. domestic law includes an analysis of the Federal Tort Claims Act ("FTCA") (for suits by U.S. citizen against U.S. Government)¹⁴ and the Foreign Sovereign Immunity Act ("FSIA") (for suits by U.S. citizens against foreign governments in U.S. federal court).¹⁵

¹⁰ Mark A. Dombroff, *Space Law Opens a New Frontier For Justice Department Attorneys*, NAT'L L.J., May 23, 1983, at 24.

¹¹ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter "1967 Outer Space Treaty"]. As of January 1, 1997, this Treaty was in force for 102 parties, including the United States. See U.S. DEP'T OF STATE, PUB. NO. 9433, A LIST OF TREATIES AND OTHER INTERNATIONAL AGREEMENTS OF THE UNITED STATES IN FORCE ON JANUARY 1, 1997 439 (1997).

¹² Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, T.I.A.S. No. 7762 [hereinafter "1972 Convention on Liability"]. As of January 1, 1997, this treaty was in force for 88 parties, including the United States. See U.S. DEP'T OF STATE, *supra* note 11, at 439-40.

¹³ Statute of the International Court of Justice (ICJ), art. 38(1), which is binding on all signatories to the United Nations Charter per the U.N. Charter, defines customary law as being a part of international law. Article 38 of the Statute of the ICJ states:

The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:

- (a) international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- (b) international custom, as evidence of a general practice accepted as law;
- (c) the general principles of law recognized by civilized nations;
- (d) . . . judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

See also RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 102(2) (1987) ("Customary international law results from a general and consistent practice of states followed by them from a sense of legal obligation").

¹⁴ Federal Tort Claims Act (FTCA), 28 U.S.C. §§ 1346(b), 2671-2680 (1998).

¹⁵ Foreign Sovereign Immunity Act (FSIA), 28 U.S.C. §§ 1330, 1332, 1391, 1441, 1602-1611, as amended by Pub. L. No. 100-640, 102 Stat. 3333 (1997).

Ultimately, this article addresses whether current municipal law protections are adequate to protect U.S. citizens from damages caused via the negligence of government sponsored activities in outer space. Part II of this article defines the terms "air space" and "outer space" and describes the importance of this terminological distinction as it relates to the issue of compensation for torts occurring in outer space. Part III surveys the two major municipal law impediments to suing a sovereign in a court of the United States for outer space "torts," namely the FTCA and the FSIA. Part IV examines the international law compensation scheme for damages to U.S. citizens caused by space travel activities, including application of the 1967 Treaty on Outer Space, the 1972 Convention on Liability, and application of the customary international law principle of diplomatic protection. Part V analyzes the strengths and weaknesses of the foregoing legal regimes, discusses alternative theories of recovery, and proposes revisions to current municipal law so as to avoid the inequitable results which could result in cases involving tortious injury occurring in outer space.

I. DISTINCTION BETWEEN "TERRITORIAL AIR SPACE" AND "OUTER SPACE"

A preliminary discussion of the boundaries of "territorial air space" and "outer space" is essential in order to determine which legal regime (i.e., which set of municipal or international rules of compensation, or which combination) will apply in any given case.¹⁶ At the outset, it should be recognized that the 1944 Chicago Convention on International Civil Aviation,¹⁷ as well as customary international law,¹⁸ clearly provides that every sovereign state has complete and exclusive sovereignty over the air space above its territory.¹⁹ This is a basic legal principle of international law and has been recognized and incorporated in U.S. municipal law as well.²⁰ As such, to the extent an accident

¹⁶ See S.B. Rosenfield, *The Need to Distinguish Air Space from Outer Space*, 20 COLLOQUIUM L. OUTER SPACE 61 (1977).

¹⁷ Convention on International Civil Aviation, Dec. 7, 1944, T.I.A.S. No. 1591, 15 U.N.T.S. 295 [hereinafter "Convention on International Civil Aviation"]. As of January 1, 1997, this Convention was in force for over 180 parties, including the United States. See U.S. DEP'T OF STATE, *supra* note 11, at 379-80.

¹⁸ See Statute of the ICJ, art. 38(1).

¹⁹ Convention on International Civil Aviation, *supra* note 17, art. 1 ("The contracting States recognise that every State has complete and exclusive sovereignty over the air space above its territory").

²⁰ See, e.g., 49 U.S.C. App. § 1508(a) (1993) ("The United States of America is declared to

occurred within a country's air space (as defined below), that country's domestic law would clearly apply to the incident by virtue of the 1944 Chicago Convention.

Prior to the advent of the space age, the above analysis adequately addressed any issue of a tort occurring anywhere in the air. That is, historically, the authority over the air space above a sovereign's territory was thought to extend from the ground up through the infinite reaches of space (*usque ad coelum*).²¹ However, with the deployment of Sputnik into space, countries were forced to revisit the issue of precisely where territorial air space ends and outer space begins.²² Thus, in recent years, due to immense strides in technology and space activities, the term "outer space" has been defined by treaty law as territory which is beyond the sovereign claim, laws, or control of any one nation.²³ Phrased another way, outer space is recognized as belonging to the common heritage of mankind and may not be acquired or appropriated by any nation. However, as international and domestic laws now recognize a legal distinction between "territorial air space" (under the control of the sovereign as part of its territory) and "outer space" (not under the control of any sovereign and considered international territory), the need to define the two areas/terms is imperative.²⁴

possess and exercise complete and exclusive national sovereignty in the air space of the United States, including the air space above all inland waters and air space above those portions of the adjacent marginal high seas, bays, and lakes, over which by international law or treaty or convention the United States exercises national jurisdiction"), *repealed* July 5, 1994, by Pub. L. No. 103-272, § 7(b), 108 Stat. 1379. A more broad statement was replaced in its stead. *See* 49 U.S.C. § 40103 (1998). *See also* *Pignataro v. United States*, 172 F. Supp. 151, 152 (E.D.N.Y. 1959) (noting that it is within the basic sovereignty of every nation to control the airspace over its territory).

²¹ LOUIS HENKIN ET AL., *INTERNATIONAL LAW* 343 (1993).

²² Sputnik was launched into orbit by the then-Soviet Union on October 4, 1957. *See* N.Y. TIMES, Oct. 5, 1957, at 1. For initial legal international ramifications of Sputnik in this area, *see* Bin Cheng, *United Nations Resolutions on Outer Space: Instant International Customary Law*, 5 *INDIAN J. INT'L L.* 23 (1965); *see also* Robert L. Bridge, *International Law and Military Activities in Outer Space*, 13 *AKRON L. REV.* 649 (1980).

²³ *See* 1967 Outer Space Treaty, *supra* note 11, art. I.

²⁴ For a discussion of the various criteria of delimitation that have been proposed, *see* Barbara J. Rowbo, *Airspace—Outer Space? The Geostationary Orbit and the Need for Precise Definition of Outer Space*, 4 *N.Y.L. SCH. J. INT'L & COMP. L.* 115 (1982); He Qizhi, *The Problem of Definition and Delimitation of Outer Space*, 10 *J. SPACE L.* 157 (1982); Michael J. Finch, Comment, *Limited Space: Allocating the Geostationary Orbit*, 7 *NW. J. INT'L L. & BUS.* 788 (Fall 1986); Bin Cheng, *Legal Regime of Air Space and Outer Space: The Boundary Problem, Functionalism versus Spatialism: The Major Premises* 5 *ANNALS OF AIR & SPACE L.* 323, 335-38 (1980); *see also* U.N. Doc. A/AC.105/C.2/7 (1970).

The majority rule today, accepted by most nations, is that the boundary between outer space and air space should be near the lowest altitude (perigee) at which artificial earth satellites can remain in orbit without being destroyed by friction with the air.²⁵ To avoid a change in the law (as technology advances allowing for lower artificial satellites), it has been additionally proposed that the term "outer space" (as used in the 1967 Outer Space Treaty) "includes all space at and above the lowest perigee achieved by . . . 27 January 1967, when the treaty was opened for signature, by any satellite put into orbit, without prejudice to the question whether it may or may not later be determined to include any part of space below such perigee."²⁶

There have also been several competing minority views as to where outer space actually begins, to include starting at different points above the earth²⁷ (i.e., starting at a set distance above the earth) or using a "functional approach" to defining space (i.e., resolution of issue, in part, depends on character of activity at issue).²⁸ An example of the "functional approach" can be seen in the United States Federal Rules of Criminal Procedure, which defines "space" as including "any vehicle used or designed in flight or navigation in space" and applies "while that vehicle is in flight, which is from the moment when all external doors are closed on earth."²⁹

The purpose here is not to enter the fray as to where the demarcation of territorial air space and outer space ought to be, but rather to

²⁵ This would be approximately 90 kilometers above the surface of the earth. See Lubos Perek, *Scientific Criteria for the Delimitation of Outer Space*, 5 J. SPACE L. 111, 118 (1977); see also Finch, *supra* note 24, at 794.

²⁶ INTERNATIONAL LAW ASSOCIATION, REPORT OF THE FIFTY-THIRD CONFERENCE BUENOS AIRES 1968 xxii (L.C. Green ed., 1968).

²⁷ For instance, some have called for an approach based upon the theoretical limit of an airlift, rather than the lowest possible perigee rule of a satellite. For a review of the various theories regarding the demarcation, see John C. Kunich, *Planetary Defense: The Legality of Global Survival*, 41 A.F. L. REV. 119, 130 (1997); Bin Cheng, *The Legal Status of Outer Space and Related Issues: Demilitarization of Outer Space and Definition of Peaceful Use*, 11 J. SPACE L. 93, 93-95 (1985); J. Parkerson, *International Legal Implications of the Strategic Defense Initiative*, 116 MIL. L. REV. 81 (1987); see also, generally, HENKIN ET AL., *supra* note 21, at 1369. This would place the demarcation at approximately 84 km, rather than the 90 km based upon the perigee rule. See ANDREW HALEY, *SPACE LAW AND GOVERNMENT* 97 (1963). In 1978, the Soviet Union proposed a demarcation point at approximately 100-110 kilometers at the United Nations' Committee on the Peaceful Uses of Outer Space (COPUOS). See Kunich, *supra*, at 129-30. The United States rejected these attempts to define "outer space" as beginning of any set distance above the earth. See *id.* at 130 n.39.

²⁸ See MCDUGAL ET AL., *LAW AND PUBLIC ORDER IN SPACE*, 349-55 (1963).

²⁹ 18 U.S.C. § 7 (1993).

offer a precise definition for later use throughout this article. In this vein, it is also important for the reader to note that the concern over the actual point of demarcation is not merely an esoteric or passing academic point. Rather, the issue is important as the rules for compensation change remarkably depending on whether the injured party finds himself above or below the jurisdictional boundary line (i.e., in outer space or within a sovereign's territorial air space). For purposes of the remainder of this article, the article will utilize the majority rule, that the air space-outer space boundary exists at the lowest altitude (perigee) at which artificial earth satellites can remain in orbit without being destroyed by friction with the air (roughly 90 km above the surface of the earth).

II. INDIVIDUAL SUITS BY U.S. CITIZENS: NO ADEQUATE DOMESTIC REMEDY AVAILABLE

A. *Suits Against the United States Government in United States or Lesser Territorial Courts: Application of the Federal Tort Claims Act and the "Foreign Country" Exception*

1. Overview of the FTCA and "Foreign Country Exception"

Traditionally, the United States Government was immune to suit by its own citizens.³⁰ The notion of absolute sovereign immunity from legal action of a sovereign's subjects had its roots in the English common law maxim that the "king can do no wrong"³¹ and may even have had its roots in feudal laws.³² After over one hundred and fifty years of absolute immunity in the United States³³ and countless private bills of

³⁰ See W. PAGE KEETON ET AL., PROSSER & KEETON ON THE LAW OF TORTS §§ 131, 1033 (5th ed. 1984); see also Louis L. Jaffee, *Suits Against Governments and Officers: Sovereign Immunity*, 77 HARV. L. REV. 1 (1963).

³¹ See KEETON ET AL., *supra* note 30, at §§ 131, 1033; see also COMMITTEE ON THE OFFICE OF ATTORNEY GENERAL, NATIONAL ASSOCIATION OF ATTORNEYS GENERAL, SOVEREIGN IMMUNITY: THE TORT LIABILITY OF GOVERNMENT AND ITS OFFICIALS 43 (1979) (report may be obtained from the National Association of Attorneys General [NAAG], 750 First Street, N.E., Suite 1100, Washington, DC 20002).

³² In the thirteenth century, it was recognized that the King could not be sued in his own courts. CLYDE E. JACOBS, *THE ELEVENTH AMENDMENT AND SOVEREIGN IMMUNITY* 5 (1972). Blackstone later noted that no suit or action could be brought against the King, even in civil matters, because no court could have jurisdiction over him. 3 W. BLACKSTONE, *COMMENTARIES* 255.

³³ In 1834, the U.S. Supreme Court stated in dictum that the doctrine of sovereign immunity applied to the federal, as well as the state governments. *United States v. Clarke*, 33 U.S. (8 Pet.)

relief,³⁴ the United States waived its immunity for liability in tort, and consented to a limited waiver of sovereign immunity as it relates to certain classes of claims alleging negligence made against it in the federal courts under the terms of the FTCA.³⁵ Indeed, the Federal Employees Liability Reform and Tort Compensation Act³⁶ amended 28 U.S.C. § 2879 of the FTCA to provide that the FTCA is the *exclusive* remedy for tort claims arising from actions taken by federal employees within the scope of their employment.³⁷ As such, the FTCA is the exclusive and sole remedy available for injury caused by the negligent actions of the United States or its employees in outer space.

Basically, the FTCA imposes liability on the United States for acts of its employees “in the same manner and to the same extent as a private individual under like circumstances.”³⁸ Subject to certain exceptions and limitations, the FTCA provides for (1) the payment of money damages, for (2) injury or loss of either real or personal property or for personal injury or death, (3) caused by a wrongful or negligent act or omission, (4) of an employee of the United States, (5) acting within

436 (1834). In a later case, the Court expressly held that “the government is not liable to be sued, except with its own consent, given by law.” *United States v. Elmore*, 45 U.S. (4 How.) 286, 287–88 (1846).

³⁴ Prior to the enactment of the FTCA, in order to compensate a victim of a tort committed by the United States, the Congress of the United States would have to pass a private bill of relief. See 1 LESTER JAYSON, *HANDLING FEDERAL TORT CLAIMS: ADMINISTRATIVE AND JUDICIAL REMEDIES* § 2.02 (1998). These bills of relief were drafted, debated, and passed just like any other piece of legislation. The time necessary to accomplish remuneration by this method was long and the process was onerous. Congress’ desire to avoid this onerous process was one of the reasons behind enactment of the FTCA. See COMMITTEE ON THE OFFICE OF ATTORNEY GENERAL, *supra* note 31, at 43. Indeed, the statement of purposes for the FTCA included:

- (2) the need of the Congress to be relieved of the burden imposed by multitudinous bills for private relief arising from tort claims against government employees;
- (3) the advantage of an impartial judicial forum for both the complainant and the Government in which to discover the facts in the same manner as private law suits;
- (4) a desire of Congress to expedite the payment of just claims.

Id. As an example as to the prevalence of these bills of relief, in each of the Seventy-fourth and Seventy-five Congresses over 2,300 private claim bills of relief were introduced, seeking more than \$100,000,000.00. In the Seventy-seventh Congress, of the 1,829 private claims introduced and referred to the Claims Committee, 593 were approved for a total of \$1,000,253.30. See H.R. REP. NO. 1287, at 2 (1945).

³⁵ The FTCA was passed based upon “a desire on the part of the federal government *in the interests of justice and fair play* to permit a private litigant to satisfy his legal claims for injury or damage suffered at the hands of a United States employee acting in the scope of employment.” COMMITTEE ON THE OFFICE OF ATTORNEY GENERAL, *supra* note 31, at 43.

³⁶ Pub. L. No. 100-694.

³⁷ 28 U.S.C. § 2679(b)(1) (1998).

³⁸ *Id.* § 2674.

the scope of employment, (6) where the United States, if a private person, would be liable, (7) according to the law of the place where the act or omission occurred.³⁹ The Act also sets forth thirteen statutory exceptions, which act to prohibit recovery under the statute.⁴⁰

As stated above, however, Congress did not waive the sovereign immunity entirely. Rather, Congress adopted thirteen specific exceptions within the body of the FTCA, which, if applicable, act as a bar to suit against the United States under the FTCA. As it relates to the subject of this article (i.e., governmental activities in outer space), the "foreign country" exception is the germane provision which would be raised in defense of liability if the United States were sued under the FTCA for a tort occurring in outer space.⁴¹ The "foreign country" exception to the FTCA provides, in essence, that the United States cannot be sued for, and has not waived its sovereign immunity to, suits arising in a "foreign country."⁴² That is, under the "foreign country" exception, the United States is not liable for accidents which occur within the territory of a "foreign country."⁴³ While the term "foreign country" remains undefined in the text of the FTCA, the legislative history of the exception appears to support the conclusion that the chief concern of the section was to prevent the United States government from being liable pursuant to the laws of another nation.⁴⁴ That is, according to the basic terms of the FTCA, the *situs* of the accident dictates what law applies in defining the government's negligence.⁴⁵ As such, Congress saw the need for a "foreign country" exception so that the United States would not be subject to the laws of hundreds of

³⁹ In order to file suit under the FTCA, certain procedural steps must be taken. Namely, the plaintiff must first file an administrative claim with the agency that allegedly committed the wrong. After submitting the claim, the claimant must allow the agency at least six months to adjudicate the claim before filing a lawsuit against the United States in United States District Court. *See id.* § 2675(b).

⁴⁰ These exceptions are contained at 28 U.S.C. § 2680 (1998).

⁴¹ *Id.* § 2680(k).

⁴² *Id.*

⁴³ *See, e.g.,* Price v. United States, 69 F.3d 46 (5th Cir. 1995); Grunch v. United States, 538 F. Supp. 534 (E.D. Mich. 1982).

⁴⁴ For a good exposition of the "foreign country" exception, *see* Mark Dean, Note, *Smith v. United States: Justice Denied Under the FTCA "Foreign Country" Exception*, 38 ST. LOUIS U. L.J. 553 (1993-1994). Mr. Dean convincingly writes that the legislative history behind the "foreign country" exception establishes that Congress was concerned with preventing the United States government from being liable pursuant to the laws of another country. *See id.* at 561. Mr. Dean concludes that the "foreign country" exception should not apply to sovereignless regions like Antarctica and Outer Space. *See id.* at 584.

⁴⁵ 28 U.S.C. § 2674 (1998); *see also* Frazier v. United States, 412 F.2d 22, 23 (6th Cir. 1969).

different legal systems and concepts of jurisprudence. As the Supreme Court noted, Congress was simply "unwilling to subject the United States to liabilities depending upon the laws of a foreign power."⁴⁶

Although there have been a bevy of cases dealing with the "foreign country" exception in regards to incidents occurring on land subject to the jurisdiction of another country, on land subject to United Nations trusteeships supervision,⁴⁷ in air space over foreign countries,⁴⁸ in American embassies,⁴⁹ on military bases,⁵⁰ and on war time acquisitions,⁵¹ none of these cases specifically dealt with regions where *no* other foreign law would be applicable in the case. This is especially relevant because, as stated above, Congress enacted the "foreign country" exception to the FTCA so that the United States would not be held liable pursuant to the laws of another nation. As outer space, the high seas, and Antarctica⁵² are neither "foreign countries" nor governed by "foreign law," these areas would seemingly fall outside of the purview of this exception. Indeed, prior to 1993, at least one court actually held that the "foreign country" exception did not bar tort actions based upon incidents occurring on the high seas or in aircraft flying over the high seas, as no other foreign law applied.⁵³

Perhaps in light of the above, and because there was no serious contention that "foreign law" applied in outer space⁵⁴ (i.e., because of basic international law tenants described above), legal scholars thought that

⁴⁶ *United States v. Spelar*, 338 U.S. 217, 221 (1949).

⁴⁷ *Callas v. United States*, 253 F.2d 838 (2d Cir. 1958).

⁴⁸ See *Pignataro v. United States*, 172 F. Supp. 151 (E.D.N.Y. 1959).

⁴⁹ See *Meredith v. United States*, 330 F.2d 9 (9th Cir. 1954).

⁵⁰ See *Spelar*, 338 U.S. at 221.

⁵¹ See *Callas*, 253 F.2d at 838.

⁵² The Antarctica Treaty specifies that no party to the agreement may assert a claim of sovereignty over any portion of the continent while the Treaty is in effect. Antarctica Treaty, Dec. 1, 1959, art. IV, ¶ 1, 12 U.S.T. 794, 796; 402 U.N.T.S. 71, 74.

⁵³ See *Blumenthal v. United States*, 306 F.2d 16 (3d Cir. 1962).

⁵⁴ See, e.g., Joseph Bosco, *Liability of the United States Government for Outer Space Activities which Result in Injuries, Damages or Death According to United States National Law*, 51 J. AIR L. & COM. 809, 827 (1986); see also Larry Kaplan, *Space-Specific Remedies for Torts in Outer Space: What Path Will United States Law Follow?*, 22 INT'L LAW 1145, 1153 (1988). Mr. Kaplan writes that it was improbable that courts "would ever refuse to entertain lawsuits that allege space torts even though no federal space code exists. Whether appropriate or not, no court has yet seen fit to dismiss a case on the theory that there is no law that is applicable to actions arising in outer space." *Id.*; see also Dombroff, *supra* note 10, at 24; Joseph Bosco, *The United States Government as Defendant—One Example of the Need for a Uniform Liability Regime to Govern Outer Space and Space-Related Activities*, 15 PEPP. L. REV. (1988); Barton Showalter, *In Space, Nobody Can Hear You Scream "Tort!"*, 58 J. AIR L. & COM. 795 (1993).

the FTCA would therefore allow claims arising in outer space on the theory that the FTCA was intended to cover unique and unprecedented forms of liability, and *no foreign law* would be applicable to the incident at issue.⁵⁵ Even if the FTCA did not technically apply, other scholars thought that courts would allow suits under the FTCA on grounds of fairness alone.⁵⁶ However, the Supreme Court's exegesis in *Smith v. United States* (discussed below) has thrown the whole idea of compensation under the FTCA for outer space "torts" into serious question.⁵⁷

2. Outer Space is a "Foreign Country" Under the FTCA

In *Smith*, the Supreme Court had the opportunity to decide whether a region *not* owned or subject to foreign law (e.g., a region such as outer space) constitutes a "foreign country" under the FTCA.⁵⁸ That is, the Court was faced with the issue as to whether the "foreign country" exception would bar an otherwise meritorious suit against the United States under the FTCA, even though the incident giving rise to the claim did not occur within the jurisdiction of another foreign sovereign. Hence, in order to understand fully why a U.S. citizen cannot recover against the United States for injuries due to the negligence of the United States for incidents involving clear liability above the territorial air space of the United States, an analysis of *Smith* is necessary.

The facts underlying *Smith* are as follows. On November 23, 1986, John Emmett Smith fell into a crevasse in Antarctica after straying off the approved path leading to and from the McMurdo Station, a facility operated by the United States in Antarctica.⁵⁹ Mr. Smith died as a result of exposure and internal injuries he suffered as a result of the fall into the crevasse. Subsequently, his widow, Ms. Sandra Jean Smith, filed a wrongful death action under the FTCA, claiming negligence on the part of the United States for its failure to warn U.S. citizens at

⁵⁵ "Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claims of sovereignty, by means of use or occupation, or by any other means." 1967 Outer Space Treaty, *supra* note 11, art. II.

⁵⁶ See *supra* note 54 and accompanying text.

⁵⁷ 507 U.S. 197 (1993).

⁵⁸ See *id.*

⁵⁹ McMurdo is the largest American base and logistics facility in Antarctica. John Smith was a contract worker for a private corporation employed at the McMurdo station. See *Smith v. United States*, 702 F. Supp. 1480, 1483 (D. Or. 1989).

McMurdo Station of the dangerous conditions present in Antarctica generally, and of the approved path specifically.⁶⁰

At the time Ms. Smith filed a claim against the United States under the FTCA, only one other case, *Beattie v. United States*, dealt directly with the application of the FTCA to Antarctica.⁶¹ In *Beattie*, an Air New Zealand aircraft crashed into Mount Erebus, Antarctica, killing all aboard.⁶² The families of the victims filed a wrongful death action claiming the United States was negligent in the selection, training, and supervision of air traffic personnel at McMurdo base, the same base involved in Ms. Smith's complaint in *Smith*.⁶³ In *Beattie*, the Government moved to dismiss, claiming that Antarctica was a "foreign country" for purposes of the FTCA. However, the Circuit Court for the District of Columbia disagreed, holding that Antarctica was not a "foreign country" at all. Importantly, the court stated: "Antarctica is not a foreign country; *it is not a country at all; and it is not under the domination of any other foreign nation or country.*"⁶⁴ Further, in closing the court stated: "All this attempted limitation of coverage rests on one indefensible concept—that Antarctica is a 'foreign country' . . . Antarctica is an area without any law whatsoever."⁶⁵ Thus, in *Beattie*, the court allowed the plaintiffs to proceed against the United States under the FTCA, as the "foreign country" exemption was inapplicable.⁶⁶

Despite the D.C. Circuit's ruling in *Beattie*, the Oregon district court⁶⁷ dismissed Ms. Smith's complaint for lack of subject matter jurisdiction, holding that her claim was barred by the "foreign country" exception.⁶⁸ The court specifically held that Section 2680(k) of the FTCA mandated the dismissal of this claim as the FTCA precluded the exercise of jurisdiction over "any claim arising in a foreign country."⁶⁹

⁶⁰ Ms. Smith specifically alleged the U.S. was negligent in failing to provide adequate warning of the dangers posed by crevasses in areas beyond the marked paths. See *Smith*, 507 U.S. at 199.

⁶¹ 756 F.2d 91 (D.C. Cir. 1984).

⁶² See *id.* at 93.

⁶³ See *id.* at 93–94; see also *Smith*, 702 F. Supp. at 1483.

⁶⁴ *Beattie*, 756 F.2d at 94 (quoting district court opinion in case) (emphasis added).

⁶⁵ *Id.* at 105–06.

⁶⁶ The *Beattie* decision would have been relevant to incidents of liability occurring in outer space as well. First, the court in *Beattie* applied the FTCA to Antarctica, a territory similar to outer space in that both are sovereignless international territories. Second, Judge Wilkey, who wrote the *Beattie* decision, analogized Antarctica to outer space in the decision. See *Beattie*, 756 F.2d at 99–100.

⁶⁷ See *Smith*, 702 F. Supp. at 1482–83. Ms. Smith resided in Oregon at the time of the accident. *Id.* at 1483.

⁶⁸ See *id.* at 1482–83; see also *Smith*, 507 U.S. at 199–200.

⁶⁹ *Smith*, 702 F. Supp. at 1483.

Upon appeal, the Ninth Circuit Court of Appeals affirmed the district court and placed particular emphasis on the dissenting analysis of then Judge Scalia in *Beattie*. As the Ninth Circuit's decision directly conflicted with the D.C. Circuit decision in *Beattie*, the Supreme Court granted *certiorari* to resolve the split between the circuits.⁷⁰

In ultimately affirming the Ninth Circuit's decision and holding that any "sovereignless region" of the universe would constitute a "foreign country" for purposes of the FTCA, the Court analyzed the actual language of the "foreign country" exception, the FTCA choice of law provisions, and the FTCA venue provisions.⁷¹ Under this analysis, as the Court quickly determined that the text of the FTCA was silent as to the definition of a "foreign country," the Court then turned to its canons of statutory construction.⁷² In doing so, the Court first looked to the dictionary meaning of the word "country," which the Court determined could reasonably be defined as "a region or tract of land."⁷³ Despite the obvious possibility of alternative definitions,⁷⁴ the Court continued its analysis by stating that the "ordinary meaning" of the language itself, "we think, includes Antarctica, even though it has no recognized government."⁷⁵ The Court also stated that the "common-sense" meaning of the term undermines attempts to link it exclusively to the notion that the land must be tied or controlled by some sovereign state.⁷⁶ The Court then determined, via a statutory analysis, that by this definition, the term "foreign country" would include Antarctica, even though Antarctica is not a "country" per se, or controlled by any foreign power.⁷⁷

The Court next determined that the "foreign country" exception must include Antarctica, because holding otherwise would be incon-

⁷⁰ See *Smith*, 507 U.S. at 197.

⁷¹ See 28 U.S.C. § 1346(b) (choice-of-law provision) & 28 U.S.C. § 1402(b) (venue provision).

⁷² See *Smith*, 507 U.S. at 201-03.

⁷³ *Id.* at 201.

⁷⁴ The majority did recognize the possibility of a different definition, stating "to be sure, this is not the only possible interpretation of the term, and it is therefore appropriate to examine other parts of the statute before making a final determination." *Id.* at 201.

⁷⁵ *Id.*

⁷⁶ See *id.*

⁷⁷ See *Smith*, 507 U.S. at 201. As one author points out, including Antarctica as a "foreign country" goes against other legislation which used the term "foreign country." See Dean, *supra* note 44, at 560-72. The author convincingly argues, that in many other pieces of the federal legislation, the term "foreign country" includes only areas outside the United States that are under the sovereign control or dominion of some other state. See *id.* at 583. The author concludes that Antarctica would not be considered a "foreign country" under these prior congressional definitions and prior court decisions. See *id.* at 583.

sistent with other provisions of the FTCA.⁷⁸ By this it was meant that holding otherwise, would make the venue and choice of law provisions of the FTCA nonsensical. The Court pointed to the FTCA choice of law provision (28 U.S.C. § 1346(b)), and commented that:

[I]f Antarctica were not a “foreign country,” and for the reason included with the FTCA’s coverage, § 1346(b) would instruct courts to look to the law of a place that has no law in order to determine the liability of the United States—surely a bizarre result.⁷⁹

The Court then pointed out that a strict reading of the venue provision would also be nonsensical if the FTCA were applied to a sovereignless region like Antarctica. The venue provision⁸⁰ provides that claims under the FTCA may be brought “only in the judicial district where the plaintiff resides or wherein the act or omission complained of occurred.”⁸¹ The Court viewed this as nonsensical because the FTCA would then establish jurisdiction for all tort claims against the United States arising in Antarctica, but no venue would exist unless the claimant happened to reside in the United States. This, the Court stated, would create a “venue gap” and the Court would, therefore, “prefer the construction that avoids leaving such a gap”⁸² Finally, the Court concluded by noting that the Court favors the presumption against extraterritorial application of statutes⁸³ (unless so explicitly delineated) and the requirement that the Court extinguish any lingering doubt regarding the reach of the FTCA against extraterritorial application.⁸⁴

Thus, the majority’s opinion can be characterized as a strict reading or construction of the statute⁸⁵ to resolve the question as to what was

⁷⁸ Namely, the choice of law and venue provisions within the FTCA. *See supra* note 71.

⁷⁹ *Smith*, 507 U.S. at 201–02.

⁸⁰ 28 U.S.C. § 1402(b) (1998).

⁸¹ *Id.*

⁸² *Smith*, 507 U.S. at 203 (citation and internal quotation omitted).

⁸³ *See id.* at 202–05.

⁸⁴ *See id.* at 204–05.

⁸⁵ A little more to the point, Justice Stevens in his dissent called the majority’s reading of the FTCA as a “parsimonious” construction of the statute. *Id.* at 205. A commentator has likewise called the majority’s statutory application “wooden.” Lauren S. Bornemann, *This is Ground Control to Major Tom... Your Wife Would Like to Sue But There is Nothing We Can Do...The Unlikelihood That The FTCA Waives Sovereign Immunity For Torts Committed by United States Employees in Outer Space: A Call for Preemptive Legislation*, 63 J. AIR L. & COM. 517, 539 (1998) (“The Supreme Court went to extraordinary lengths in *Smith* to put select words of the FTCA in

meant by the “foreign country” exception.⁸⁶ The dissent, on the other hand, believed the majority’s construction directly contravened the long jurisprudential history relating to the negligence of federal agents on the sovereignless high seas and the original background to the FTCA at the time it was enacted. That is, Justice Stevens’ argument rested on the fact that when the FTCA was enacted in 1946, neither the Suits in Admiralty Act nor the Public Vessels Act allowed for claims against the Government for negligence on the high seas.⁸⁷ Justice Stevens went on to point out that the FTCA covered negligence actions on the high seas prior to the 1960 amendment of the Suits in Admiralty Act which brought all maritime torts under the Act and outside the FTCA.⁸⁸ Hence, Justice Stevens characterized the majority’s opinion as “untenable” because the FTCA did cover the “sovereignless reaches of the high seas” prior to 1960.⁸⁹ More importantly, the dissent believed that the majority’s “parsimonious” construction of the FTCA was inconsistent with the overriding purpose and intent of the FTCA:

The wisdom that prompted the Court’s grant of certiorari is not reflected in its interpretation of the 1946 Act. Rather, it reflects a vision that would exclude electronic eavesdropping from the coverage of the Fourth Amendment and satellites from the coverage of the Commerce Clause. The international community includes sovereignless places but no places where there is no rule of law. Majestic legislation like the Federal Tort Claims Act should be read with the vision of the judge, enlightened by an interest in justice, not through the opaque green eye-shade of the cloistered bookkeeper.⁹⁰

Justice Stevens also correctly foresaw the problem this “narrow” ruling created with the advent of the space age. Stevens wrote poignantly that the majority was wrong

not only because its answer identifies the character of our concern about ordinary justice, but also because Antarctica

a context that would justify its ruling. Its wooden application of ‘statutory norms of construction’ to arrive at an interpretation that diametrically differs from that of most other courts seems to indicate a fundamental belief on its part that the United States should not be liable for the damages it causes if it can avoid that liability”).

⁸⁶ See *Smith*, 507 U.S. at 203.

⁸⁷ See *id.* at 208–10 (Stevens, J., dissenting).

⁸⁸ See *id.* at 207–10 (Stevens, J., dissenting).

⁸⁹ See *id.* at 209 (Stevens, J., dissenting).

⁹⁰ *Id.* at 216–17 (Stevens, J., dissenting).

is just one of three vast sovereignless places where the negligence of federal agents may cause death or physical injury. *The negligence that is alleged in this case will surely have its parallels in outer space as our astronauts continue their explorations of ungoverned regions far beyond the jurisdictional boundaries that were familiar to the Congress that enacted the Federal Tort Claims Act (FTCA) in 1946.*⁹¹

The ramifications of *Smith* are now indeed far reaching.⁹² Clearly, absent statutory revisions, the FTCA can no longer be said to apply in any sovereignless region.⁹³ One author has aptly captured the problem with the majority's holding by stating that "no court will ever reach the question of who—if anyone—was responsible for Mr. Smith's death. Mrs. Smith is a widow without a forum."⁹⁴ Clearly, as a result of *Smith*, the FTCA can no longer be considered to be an adequate remedy for U.S. citizens injured in outer space by the United States, despite earlier thoughts to the contrary. Thus, due to the Supreme Court's ruling in *Smith*, any U.S. citizen who is injured due to the negligence of the United States in outer space would be barred from recovery under the FTCA.⁹⁵ To utilize the example of the space shuttle Challenger mentioned at the onset of this article, if the United States refused to provide compensation in the administrative claim stage, and the accident occurred today (i.e., after the Supreme Court's decision in *Smith v. U.S.*), the family of Sharon Christa McAuliffe would have been barred from recovery under the FTCA. Mr. McAuliffe would have been a widower without a forum.⁹⁶

⁹¹ *Id.* at 205 (Stevens, J., dissenting) (emphasis added).

⁹² See, e.g., David Stewart, *Out in the Cold*, 79 A.B.A.J. 44 (June 1993) ("The remaining question, of course, is why the justices chose to hear this particular case . . . perhaps the answer is that the justices have adopted the Star Trek creed, resolving 'to boldly go where no man has gone before.'").

⁹³ See Bornemann, *supra* note 85, at 539.

⁹⁴ Jonathan Blum, *The Deep Freeze: Torts, Choice of Law, and the Antarctica Treaty Regime*, 8 EMORY INT'L L. REV. 667, 669 (1994).

⁹⁵ One author, in discussing the criminal law implications of the "jurisdictional vacuum" of Antarctica, stated that Antarctica "is the place to murder your mother-in-law". Robert Reinhold, *In International Law, Antarctica is a Twilight Zone*, N.Y. TIMES, Mar. 14, 1982, at 9.

⁹⁶ For actual settlements in the case, see *supra* note 6.

B. *Suits Against Foreign Countries by U.S. Citizens in U.S. Courts:*⁹⁷ *An Application of the Foreign Sovereign Immunities Act of 1976*

In 1976, the United States enacted the FSIA to cover the jurisdictional grounds for suing a sovereign state⁹⁸ in U.S. courts. That is, just as the FTCA provides the exclusive framework for suing the United States for negligence, the FSIA provides the exclusive framework for suing other sovereign states in U.S. courts.⁹⁹ Like the FTCA, the FSIA establishes a framework for determining whether any United States court may exercise jurisdiction over any particular case.¹⁰⁰ Under the FSIA, a "foreign state *shall* be immune from the jurisdiction of the courts of the United States and of the States" unless one of several statutorily defined exceptions applies in the case.¹⁰¹ Thus, phrased another way, the FSIA provides the "sole basis" for obtaining jurisdiction over a foreign state in the courts of the United States,¹⁰² and jurisdiction will not be had unless the plaintiff can meet one of the exceptions specifically delineated within the text of the FSIA. That is, under the Act, a foreign state is presumptively immune from the jurisdiction of United States courts and, unless a specified exception applies, the court lacks subject matter jurisdiction over the claim.¹⁰³ Hence, a U.S. citizen/plaintiff is jurisdictionally barred from suing a foreign government in a U.S. court for injuries suffered from the foreign government's activities in outer space unless an exception to the FSIA can be satisfied by the injured party as condition precedent to bringing suit.¹⁰⁴

⁹⁷ Of course, the plaintiff may always travel to the home country to sue in that sovereign country's own court system. In addition to the time and travel expenses involved in such an action, the plaintiff must rely on the sovereign's municipal law. This option is further complicated by the fact that many countries have not waived their immunity to suit within their country.

⁹⁸ The FSIA provides for the immunity of the sovereign state, as well as political subdivisions, agencies and instrumentalities of the foreign state. Therefore, a foreign state's space agency would clearly fall within the purview of the FSIA. 28 U.S.C. § 1603(a-b) (1998).

⁹⁹ FSIA, 28 U.S.C. §§ 1330, 1332, 1391, 1441, 1602-1611 (1998).

¹⁰⁰ 28 U.S.C. § 1602 (1998).

¹⁰¹ FSIA, 28 U.S.C. § 1604 (1998) (emphasis added).

¹⁰² See *Argentine Republic v. Amerada Hess Shipping Corp.*, 488 U.S. 428, 434 (1989) ("We think that the text and structure of the FSIA demonstrate Congress' intention that the FSIA be the sole basis for obtaining jurisdiction over a foreign state in our court.")

¹⁰³ See *Verlinden B.V. v. Central Bank of Nigeria*, 461 U.S. 480, 488-89 (1983).

¹⁰⁴ See *Amerada Hess Shipping Corp.*, 488 U.S. at 434 (FSIA is sole basis for obtaining jurisdiction over foreign state in U.S. court).

The FSIA lists a total of seven possible exceptions where, if proven, a foreign sovereign state may be sued in a U.S. court.¹⁰⁵ Upon first reading of the FSIA, four of the exceptions, depending on the fact pattern, may arguably allow a suit by a U.S. citizen in a U.S. court against a foreign sovereign state for tort based injuries occurring above the territorial air space: (1) any case in which the foreign state has either expressly or impliedly waived its sovereign immunity;¹⁰⁶ (2) in any case in which the action is based upon a commercial activity outside of the United States where the act causes a "direct effect"¹⁰⁷ in the United States;¹⁰⁸ (3) in a case in which money damages are sought for personal injury or death, or damage to or loss of property, occurring *within* the United States and caused by the tortious act or omission of that foreign state or employee;¹⁰⁹ or (4) in any case in which a foreign state has brought an action in a court within the United States, or in a case in which a foreign state intervenes.¹¹⁰

The first possible germane exception is the "waiver"¹¹¹ exemption within the FSIA. Case law is replete with examples of when a state may have been said to have "waived" its jurisdictional defense of immunity.¹¹² Such waivers have included an explicit waiver provision in a treaty with a foreign country,¹¹³ a waiver contained in a contract with a private party,¹¹⁴ or by other conduct which may evidence an intent to waive.¹¹⁵ Basically, the foreign state must have taken some affirmative step indicating its intent to avail itself of the U.S. court system or

¹⁰⁵ The exceptions are delineated at 28 U.S.C. §§ 1602–1606 (1998).

¹⁰⁶ See 28 U.S.C. § 1605(a)(1) (1998).

¹⁰⁷ "Direct effect" is defined as being any effect which is "substantial" and "foreseeable." Republic of Argentina v. Weltover, Inc., 504 U.S. 607, 611–15 (1992).

¹⁰⁸ See 28 U.S.C. § 1605(a)(2) (1998).

¹⁰⁹ See *id.* § 1605(a)(5).

¹¹⁰ See *id.* § 1607.

¹¹¹ The FSIA distinguishes among three kinds of waiver: 1) waiver of immunity from jurisdiction; 2) waiver of immunity from attachment in aid of execution or from execution; and 3) waiver of immunity from attachment prior to the entry of judgment. See *id.* § 1610 (a-d).

¹¹² See, e.g., Behring Int'l, Inc. v. Imperial Iranian Air Force, 475 F.Supp. 383 (D.N.J. 1979), *aff'd*, 669 F.2d 657 (3rd Cir. 1983); Flota Martima Browning De Cuba, S.A. v. Motor Vessel Ciudad De la Habana, 335 F.2d 619 (4th Cir. 1964); *Weltover*, 504 U.S. at 611–15.

¹¹³ See *Behring International*, 475 F. Supp. at 393.

¹¹⁴ See S. Rep. No. 94–1310, at 17, Sept. 27, 1976, 94th Cong. 2d Sess.

¹¹⁵ Implicit waivers may be deduced from such conduct as filing an answer or general appearance without raising the jurisdictional defense of immunity. *Flota Martima Browning De Cuba*, 335 F.2d at 624–26 (holding ineffective attempt to raise the plea of immunity at later stage in litigation).

otherwise waive immunity as a general matter.¹¹⁶ While a country may waive its immunity through a specific provision of a bilateral or multi-lateral treaty, such a waiver will not be implied merely by entering into treaties generally.¹¹⁷ Thus, a claim that a country has entered into certain international agreements governing outer space does not mean a waiver has occurred for purposes of the FSIA.¹¹⁸ This is true even when a country signs a treaty that enunciates certain general views regarding liability principles.¹¹⁹ The U.S. Supreme Court explicitly ruled on this issue, stating that:

These conventions, however, only set forth substantive rules of conduct and state that compensation shall be paid for certain wrongs. They do not create private rights of action for foreign corporations to recover compensation from foreign states in the United States courts. *Nor do we see how a foreign state can waive its immunity under § 1605(a)(1) by signing an international agreement that contains no mention of a waiver of immunity to suit in the United States courts or even the availability of a cause of action in the United States.*¹²⁰

Hence, the foundational treaties governing outer space (i.e., the 1967 Outer Space Treaty and 1972 Convention on Liability) cannot be said to constitute waiver under the FSIA waiver exception as there is no mention of a domestic waiver of immunity within these treaties.

The second possible exception, and perhaps most seemingly on point, deals with tortious incidents occurring “within the United States.”¹²¹ Under the commercial activity exception to the FSIA (the third possible exception discussed more fully below),¹²² a foreign state may be liable for its commercial activities “outside the territory of the United States” having a “direct effect” inside the United States.¹²³ In contrast, however, the “tort” exception of the FSIA (§ 1605(a)(5)),

¹¹⁶ See, e.g., *Siderman de Blake v. The Republic of Argentina*, 965 F.2d 699, 707–08 (9th Cir. 1992).

¹¹⁷ See *Weltover*, 504 U.S. at 611–15 (“Nor do we see how a foreign state can waive its immunity under § 1605(a)(1) by signing an international agreement that contains no mention of a waiver of immunity to suit in United States courts or even the availability of a cause of action in the United States.”).

¹¹⁸ See *id.*

¹¹⁹ See *Amerada Hess Shipping Corp.*, 488 U.S. at 441–42.

¹²⁰ *Id.* at 442 (emphasis added).

¹²¹ 28 U.S.C. § 1605(a)(5) (1998).

¹²² 28 U.S.C. § 1605(a)(2) (1998).

¹²³ *Amerada Hess Shipping Corp.*, 488 U.S. at 434–39.

makes no mention of either "territory outside the United States" or of "direct effects" within the United States.¹²⁴ In light of the contextual differences between the "tort" and "commercial activity" exceptions within the FSIA, the Supreme Court has expressly held that because Congress chose to use specific language in § 1605(a)(2) (i.e., the "commercial activity" exception), but not in § 1605(a)(5) (i.e., the "tort" exception), the language chosen indicates that the "tort" exception in § 1605(a)(5) covers only incidents occurring within the territorial jurisdiction of the United States. Phrased another way, § 1605(a)(5) would allow recovery for damages suffered as a result of negligent foreign acts within the territorial air space of the United States (for example), but nothing beyond that point.¹²⁵ This result would not be altered by the fact that the alleged tort had "effects" within the United States.

The third possible exception (mentioned briefly above) under the FSIA is the "commercial activity" exception.¹²⁶ In essence, the "commercial activity" exception allows a suit against a foreign sovereign when the cause of action of the suit is based upon a "commercial activity" of the sovereign, carried on within the United States by the foreign state, or upon an act outside the territory of the United States in connection with a commercial activity of the foreign state elsewhere and that causes a direct effect within the United States.¹²⁷ With a weak and non-existent "tort based" remedy in the FSIA for incidents which occurred outside the United States, the attempt was made to utilize the "commercial exception" for actions sounding in tort which occurred outside the territorial confines of the United States, by claiming some commercial nexus with the United States.

However, the recent Supreme Court's decision in *Nelson v. Saudi Arabia* destroyed the possibility of recovery for outer space "torts" against a foreign sovereign under the FSIA.¹²⁸ In *Nelson*, the plaintiffs (a married couple) sued Saudi Arabia in federal district court for personal injuries resulting from Scott Nelson's alleged detention and torture in Saudi Arabia.¹²⁹ The plaintiffs argued that he had been

¹²⁴ See 28 U.S.C. § 1605(a)(5) (1998).

¹²⁵ From the outset, § 1605(a)(5) was ruled inapplicable were the tort or injury occurred outside the United States. See, e.g., *Persinger v. Islamic Republic of Iran*, 729 F.2d 835 (D.C. Cir. 1984), cert. denied, 469 U.S. 881 (detention of hostages in U.S. embassy in Iran held not to have occurred within the United States).

¹²⁶ See 28 U.S.C. § 1605(a)(2).

¹²⁷ See *id.*

¹²⁸ 507 U.S. 349 (1993).

¹²⁹ *Id.* at 352-53.

recruited in the United States as a monitoring systems engineer for a Saudi Arabian hospital but was detained and tortured once in Saudi Arabia.¹³⁰ The plaintiffs further alleged that the court had jurisdiction because, as Scott Nelson was initially recruited in the United States, they had established a "commercial activity" which occurred in the United States under Section 1605 of the FSIA.¹³¹ Saudi Arabia moved to dismiss for lack of jurisdiction, claiming sovereign immunity and arguing that no exception within the FSIA allowed for such jurisdiction.¹³² The Eleventh Circuit agreed with the plaintiffs and held that the plaintiff's suit could proceed under the FSIA as the action was, in some part, due to a "commercial activity" of Saudi Arabia, namely the recruitment of Nelson in the United States for employment.¹³³ The court held that "there was a sufficient nexus between those commercial activities and the wrongful acts that had allegedly injured the Nelsons."¹³⁴

Almost immediately following the Eleventh Circuit's ruling, several legal commentators opined that the ruling would, in essence, "open the door" for the recovery of tort-based injuries committed abroad when the plaintiff could point to any colorable nexus with commercial activity occurring within the United States.¹³⁵ However, the Supreme Court rejected the Eleventh Circuit's analysis of the "commercial activity" provision of the FSIA.¹³⁶ The Court took a strict reading of the verbiage of the exception, noting that the words "based upon" required that the cause of action be directly (and not indirectly) based upon the commercial activity.¹³⁷ The court then noted that "wrongful arrest, imprisonment and torture could not qualify," *ipso facto*, as a commercial act by a sovereign.¹³⁸ That is, a foreign state only engages in a "commercial activity" for purposes of the FSIA when it acts in the manner of a private player within the market.¹³⁹ Finally, in doing away with the plaintiffs' claim that Saudi Arabia was also negligent in failing

¹³⁰ See *id.*

¹³¹ See *id.* at 358.

¹³² See *id.* at 354.

¹³³ See *Nelson*, 507 U.S. at 355.

¹³⁴ *Id.*

¹³⁵ See, e.g., R. Romano, *Extension of the Commercial Activity Exception of the Foreign Sovereign Immunity Act to a Human Rights Violation: Nelson v. Saudi Arabia*, 5 N.Y. INT'L REV. 24 (1992).

¹³⁶ See *Nelson*, 507 U.S. at 356-61.

¹³⁷ *Id.* at 357.

¹³⁸ *Id.* at 361.

¹³⁹ *Id.*

to warn Mr. Nelson of the perils to which he was subsequently subjected, the Court stated that "this is merely a semantic ploy" and "would effectively thwart the Act's manifest purpose."¹⁴⁰

Therefore, in light of the inapplicability of any exception under the FSIA, absent a waiver of immunity by the sovereign or some strong "commercial activity" within the United States, it would be almost impossible to sue a foreign sovereign in a U. S. court for any injuries resulting from the negligent conduct of that sovereign in outer space. Thus, regardless of whether the United States is the responsible tortfeasor (under the FTCA), or a foreign country (under the FSIA), the suit would be jurisdictionally barred in any United States court.¹⁴¹ Based upon the foregoing, the court would not have the requisite subject matter jurisdiction needed to entertain the action under the FTCA and/or FSIA.¹⁴² In light of the nonexistent available domestic remedies for a United States citizen, this article now turns briefly to the international rules of compensation for tort-based injuries occurring in outer space.

C. *Actions by U.S. Citizens for Damages Suffered in Outer Space by Foreign Governments: Application of the 1967 Outer Space Treaty and the 1972 Convention on Liability*

As discussed above, we must now briefly turn to international law governing the issue of liability in outer space. The 1967 Outer Space Treaty delineates the foundational rules concerning outer space.¹⁴³ One of the most fundamental principles arising out of the 1967 Outer Space Treaty is that no country has jurisdiction over the sun, moon, or any other celestial body; as such, regions of space are not subject to any national appropriation by claims of sovereignty, by means of use or occupation, or by any other means.¹⁴⁴ More importantly, the second foundational principle of the 1967 Outer Space Treaty is that each

¹⁴⁰ *Id.* at 363.

¹⁴¹ See *supra* notes 27-41 and accompanying text.

¹⁴² *Id.*

¹⁴³ See generally 1967 Outer Space Treaty, *supra* note 11. The 1967 Outer Space Treaty is frequently described as the Constitution of outer space. See, e.g., Pamela L. Meredith, Comment, *The Legality of a High-Technology Missile Defense System*, 78 AM. J. INT'L L. 418, 422 n.44 (1984); see generally William J. Brennan, Jr., *Space Colonialization and the Law*, 3 HARV. J.L. & TECH. 7, 7-8 (1990).

¹⁴⁴ 1967 Outer Space Treaty, *supra* note 11, art. VI.

country is generally liable for damage caused by the objects and people that it puts into space.¹⁴⁵

Specifically, Article VII of the 1967 Outer Space Treaty provides, in relevant part, as follows:

Each State Party to the Treaty that launches . . . an object into outer space, including the moon and other celestial bodies . . . is *internationally* liable for damage to *another State Party* to the Treaty *or* to its natural or juridical *persons* by such object or its component parts on the Earth, in air space or in outer space, including the moon and other celestial bodies.¹⁴⁶

Thus, one of the basic principles clearly delineates that in the sovereignless regions of outer space, each state party to the treaty will be liable on the international plane¹⁴⁷ to another foreign state *or* persons of the foreign state for damages resulting from its outer space activities. However, the 1967 Outer Space Treaty was silent as to the rights of a citizen when that citizen's own country was the responsible tortfeasor. Due to this silence, several construed the international rules as not applying when the injured party was a citizen of the sovereign who caused the injuries.¹⁴⁸ As one federal judge wrote,¹⁴⁹ "the basic principle is that in the sovereignless reaches of outer space, each state party to the treaty will retain jurisdiction over its own objects and persons."¹⁵⁰

The 1967 Outer Space Treaty was soon supplemented by a second treaty, the 1972 Convention on Liability,¹⁵¹ which went further in clarifying the rules regarding compensation for tort-based injuries which occur in "outer space." Generally, the 1972 Convention provides for both "strict" (*i.e.*, absolute) liability and fault-based liability.¹⁵² First, the

¹⁴⁵ *Id.* art. VII.

¹⁴⁶ *Id.* (emphasis added).

¹⁴⁷ By international plane, it is meant that the claims are the national claims of each sovereign state. It is a well established principle of international law that individual citizens have no individually enforceable rights under a treaty on the international plane unless so provided for by the specific treaty at issue. See HENKIN ET AL., *supra* note 21, at 374-78. Thus, under the 1967 Outer Space Treaty and the 1972 Convention on Liability, individual claimants have no right per se to file a claim. The right belongs to each signatory country.

¹⁴⁸ See, e.g., *Beattie*, 756 F.2d at 91.

¹⁴⁹ See *id.* at 91. As discussed above, the *Beattie* case was the only case directly dealing with the "foreign country" exception to the FTCA and its relation to Antarctica prior to *Smith v. United States*.

¹⁵⁰ *Id.* at 100.

¹⁵¹ See 1972 Convention on Liability, *supra*, note 12.

¹⁵² See *id.* art. II-IV.

1972 Convention states that the launching state¹⁵³ shall be absolutely liable, without proof of fault, when damage giving rise to the incident is caused while on the surface of the earth (e.g., launch pad)¹⁵⁴ or caused to another aircraft in flight.¹⁵⁵ Second, the 1972 Convention states that a launching state will be jointly and severally liable for any damage caused elsewhere than on the surface of the earth.¹⁵⁶

Third, the 1972 Convention also clarified the impression that the international rules of liability should not be applied when the injured party was a citizen of the sovereign causing the injury.¹⁵⁷ This exclusion stems from the application of a venerable customary international law principle which specifies that, except in narrow circumstances, countries on the international plane should refrain from dealing or interfering with the relationship between a sovereign state and its citizenry.¹⁵⁸ Thus, Article VII of the 1972 Convention provides:

The provisions of this Convention shall not apply to damage caused by a space object of a launching state to . . . nationals of that launching state¹⁵⁹

Hence, under the above international law exclusion/exception, U.S. citizens injured by the negligent acts of the United States lack an international law remedy. As this citizen would not have a remedy against the United States under the FTCA, the injured party entirely lacks a consistent and adequate forum for the redress of his or her injuries.

A U.S. citizen injured by a foreign sovereign fares only slightly better. As the FSIA would bar a suit by the U.S. citizen in U.S. Court, these individuals must rely on the rights provided for by international law.¹⁶⁰ Under that law, these citizens would be entitled to present their claim for adjudication *through* the United States under the terms of the 1972 Convention.¹⁶¹ Specifically, Article IX of the 1972 Convention provides

¹⁵³ The "launching state" includes the state which launches the object, the state which procures the launching, the state from whose territory it is launched, and the state from whose facility it is launched. *See id.* art. I(b).

¹⁵⁴ *See id.* art. III.

¹⁵⁵ *See id.* art. II.

¹⁵⁶ *See* 1972 Convention on Liability, *supra* note 12, art. II.

¹⁵⁷ *See id.* art. VII.

¹⁵⁸ NANDASIRI JASENTULIYANA & ROY LEE, *MANUAL ON SPACE LAW* 101 (1979).

¹⁵⁹ 1972 Convention on Liability, *supra* note 12, art. VII.

¹⁶⁰ *See supra* notes 99-143 and accompanying text.

¹⁶¹ 1972 Convention on Liability, *supra* note 12, art. IX.

that a claim for compensation for damage shall be presented to a launching State through diplomatic channels. Thus, under the international law doctrine of diplomatic protection,¹⁶² the U.S. Government would take up the case of its citizen on the international plane.¹⁶³ However, there is no guarantee that the United States will raise the request for compensation on the international plane. Clearly then, a reliance on municipal U.S. laws (FTCA and FSIA), or on international laws, leaves the U.S. citizen with little to no chance of recovery or recourse for injuries received in outer space.

Indeed, the Liability Convention has never even been formally invoked. The nearest a country came to invoking the Convention dealt with the crash of Cosmos 954, a Soviet nuclear powered satellite, which was said to have contained up to a 100 pounds of uranium 235.¹⁶⁴ On September 18, 1977, Cosmos 954 began to drop from its orbit as a result of "unexplained decompression." The satellite eventually re-entered the earth's atmosphere and broke into thousands of pieces over an area in the North West Territories of Canada. While Canada made a claim against the USSR for damages caused by Cosmos 954 in the amount of \$14 million, the international rules were only used as "guiding principles."¹⁶⁵ After years of diplomatic negotiation, the USSR paid Canada only \$3 million, and rejected a plea for the reimbursement of environmental clean-up costs.¹⁶⁶ Thus, these international rules can hardly be said to be adequate, reliable, or consistent.

III. ALTERNATIVE THEORIES OF RECOVERY, CIRCUMVENTION OF THE FTCA AND FSIA PROHIBITIONS

In light of the law presented above, some thought must be given to how a U.S. citizen may seek recovery/compensation for damages despite the current domestic law exclusions as contained in the FTCA and FSIA. A few alternative theories of recovery merit discussion.

¹⁶² "Diplomatic protection" refers to the right of a country to represent the claims of its citizenry as its own on the international plane. By taking up the case of one of its subjects and by resorting to diplomatic action, a state is in reality asserting its own rights.

¹⁶³ See HENKIN ET AL., *supra* note 21, at 374-75, 397-401.

¹⁶⁴ Alexander Cohen, *Cosmos 954 and the International Law of Satellite Accidents*, 10 YALE J. INT'L L. 78 (1984).

¹⁶⁵ Documents regarding the claim by Canada against the Soviet Union for damage caused by Cosmos 954 are reproduced beginning at 18 I.L.M. 899 (1979). Specific documentation regarding Canada's demand for payment from the Soviet Union can be found at 18 I.L.M. 899, 899-909, 912, 920-22, 929-30.

¹⁶⁶ See *id.*

A. *Creative Interpretations as to Where the Tort Occurred*

As discussed above, under both the FSIA and the FTCA, in order to sustain a personal injury action in U.S. court, the plaintiff must show that the tortious acts giving rise to the injury occurred within the territorial confines of the United States.¹⁶⁷ Thus, to the extent one can establish that the tortious act occurred (at least in part) within the territorial confines of the United States, that plaintiff may avoid the "foreign country" prohibition contained in the FTCA, or satisfy the "local tort" exception (which permits suit when satisfied) under the FSIA.¹⁶⁸

In re Paris Air Crash Case of March 3, 1974 is illustrative of this approach.¹⁶⁹ On March 3, 1974, shortly after takeoff from Paris, France, a Douglas DC-10 passenger airplane owned and operated by Turkish Air Lines crashed in France, destroying the plane and killing all occupants on-board.¹⁷⁰ The survivors then sued multiple defendants, including the United States under the FTCA. The Department of Justice sought dismissal of the U.S. as a party, claiming that under the "foreign country" exception, it could not be sued under the terms of the FTCA. In disposing of this issue, the court declined to accept the Department of Justice's request for dismissal. In doing so, the court stated that all of the acts or failures to act of the United States upon which the plaintiffs rely were alleged to have actually occurred in the United States "by the wrongful approval, certification, inspection, and the like, of the plane, or the failure to do so"¹⁷¹ This decision was in accordance with earlier Supreme Court pronouncements on the subject.¹⁷²

Thus, to the extent the injuries suffered because of outer space activities can be tied to some activity which occurred in the territorial air space or land of the U.S. (which was not a "discretionary function"),¹⁷³ the plaintiff may successfully argue that the tort actually oc-

¹⁶⁷ For description of FTCA, see *supra* notes 27-97 and accompanying text, and for description of FSIA, see *supra* notes 99-143 and accompanying text.

¹⁶⁸ See *id.*

¹⁶⁹ 399 F.Supp. 732 (C.D. Cal. 1975).

¹⁷⁰ See *id.* at 735-36.

¹⁷¹ *Id.* at 737.

¹⁷² "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,' (i.e., the situs of the injury)." *Richards v. United States*, 369 U.S. 1, 9-10 (1962).

¹⁷³ For other examples of this approach, see *Orlikow v. U.S.*, 682 F. Supp. 77 (D.D.C. 1988) (cause of action for tort based upon human experimentation in Canada did not arise in foreign

curred not in the sovereignless regions of outer space, but within the territorial confines of the United States.¹⁷⁴ Another example of this approach can be seen in revisiting the Space Shuttle Challenger incident mentioned at the outset of this paper. The Challenger's ultimate destruction was said to be based upon faulty "o-rings," the gasket-like devices which were designed to help seal the joints between the sections of the shuttle's two solid-fuel rocket boosters.¹⁷⁵ The fact that such a part must be ordered, procured, inspected, tested, and approved within the United States would allow those injured to potentially avoid the FSIA/FTCA pitfalls mentioned above.¹⁷⁶

Another creative interpretation as to where the tort occurred has to do with the issue of the delimitation of space.¹⁷⁷ As the reader will recall, there are competing theories as to the actual point where the territorial air space ends and outer space begins.¹⁷⁸ Under the "majority" definition/demarcation of outer space, the plaintiff would have to allege and prove that the accident occurred before the orbit perigee had been reached. This would obviously be a question of fact and a battle of experts may ensue over the ultimate resolution of the case.

B. *Alternative Contractual Arrangements*

Alternative contractual arrangements between countries could feasibly alter the existing rules of compensation as well. That is, if during a joint space activity, participating countries each agreed to a different

country, since activity was supervised and funded in Washington, D.C.); *see also* Glickman v. United States, 626 F. Supp. 171 (S.D.N.Y. 1985) (administration of electric shocks to individuals physically located in France outside the foreign country exception to the FTCA as program was run from Washington, D.C.).

¹⁷⁴ However, the prudent practitioner must also be aware of another FTCA exception/pitfall in this context, namely the "discretionary function" exception. The discretionary function exception dictates that claims are excluded from the FTCA when they arise out of the exercise or performance of a discretionary function by a government employee. 28 U.S.C. § 2680(a). In *United States v. Varig*, 467 U.S. 797 (1984), the Supreme Court held that a claim against the FAA for negligent certification and issuance of permits was barred under the "discretionary function" exception.

¹⁷⁵ *See* Joseph Trento, *Why Challenger Was Doomed*, L.A. TIMES, Jan. 18, 1987, at 12.

¹⁷⁶ The claims which were ultimately rejected in court were not rejected because of the "inapplicability" of the FTCA to outer space. After all, at the time of the suits, the FTCA was thought to apply in outer space. *See supra* note 54. The only unsettled claim was ultimately rejected because of the Feres Doctrine, which prohibits service members from suing over tortious injuries which were incurred "incident to service." *See supra* notes 6 and 7 and accompanying text.

¹⁷⁷ *See supra* notes 17-30 and accompanying text (II. Distinction Between "Territorial Air Space" and "Outer Space").

¹⁷⁸ *See id.*

set of compensation rules. Unfortunately, the recent International Space Station Agreement¹⁷⁹ illustrates that the "compensation rules" are not lightly altered. Article 17 of the International Space Station Agreement states that "the Partner States, as well as the ESA,¹⁸⁰ shall remain liable in accordance with the Liability Convention."¹⁸¹ Hence, rather than changing or modifying the compensation scheme laid out in the 1972 Convention on Liability, the International Space Station Agreement merely incorporates it by reference.¹⁸²

C. *Private Bills of Relief by Congress*

Individuals seeking redress for a wrongful act can petition Congress to pass a private bill providing a special grant of relief, just as they could prior to the enactment of the FCTA.¹⁸³ Depending on the popularity or "public opinion" regarding the particular space activity, the private bill of relief may or may not be successful. However, the problems with private bills of relief (as a predictable legal remedy) are many: first, not all persons have equal access to or influence with their particular Congressman; second, the Congress is not as suited for determining the facts in a judicial manner, as is a federal district court; third, as space activities increase in the coming years, there will be no expectation of relief for clearly negligent actions of the United States in space.

D. *Product Liability Actions Against Private Parties*

A brief word should also be said about the viability of product liability suits. Many commercial activities today utilize a variety of com-

¹⁷⁹ Agreement Among the Government of the United States of America, Governments of Member States of the European Space Agency, the Government of Japan, and the Government of Canada on Cooperation in the Detailed Design, Development, Operation, and Utilization of the Permanently Manned Civil Space Station, Sept. 29, 1988, art. 1 [copy of agreement on file with author and the Georgetown University Law Library—International Collection] [hereinafter International Space Station Agreement]. The International Space Station Agreement is an agreement between the United States, Japan, Canada, and the governments of the member states of the European Space Agency regarding the maintenance and operation of the International Space Station. The original agreement was superseded by the Space Station Intergovernmental Agreement, which entered into force Jan. 29, 1998. See 37 I.L.M. 1495, 1998 U.S. Treaty Actions (1998). For up-to-date information on the status of the International Space Station, see the NASA International Space Station Web page at <<http://www.nasa.gov>>.

¹⁸⁰ International Space Station Agreement, *supra* note 179, art. 4. ESA stands for the European Space Agency.

¹⁸¹ *Id.* art. 17.

¹⁸² See *id.*

¹⁸³ See *Dalehite v. United States*, 346 U.S. 15, 24–25 (1953); see generally Walter Gelhorn & Louis Lauer, *Congressional Settlement of Tort Claims Against the United States*, 55 COLUM. L. REV. 1 (1955).

ponents provided by the private sector. As such, the FTCA/FSIA would not be applicable as a bar between a suit between two private parties, and private causes of action would still exist as between these parties. Indeed, as discussed briefly below, such suits have been largely successful throughout the history of the space program. As a result of one of the earliest space exploration tragedies, for example, Ms. Betty Grissom sued North American Rockwell, the makers of the Apollo I craft, on which her husband and two other astronauts died on January 7, 1967.¹⁸⁴ Ms. Grissom settled the case with North American Rockwell for \$350,000, and the widows of the two other victims each received \$150,000.¹⁸⁵ The relatives of the Space Shuttle Challenger victims also received product liability settlements from the maker of the faulty O-ring, Morton Thiokol.¹⁸⁶ While private product liability actions are beyond the subject matter of this paper, the reader should note that this remains a possible avenue of redress to injured parties and their families. The reader should further note that the government is insulated from secondary liability in this area (based upon such doctrines such as subrogation or indemnification) vis-à-vis the widespread use of cross waiver of liability contracts when private companies are involved in the space activity.¹⁸⁷

RECOMMENDATIONS AND CONCLUSION

After reviewing applicable domestic and international laws currently available, one is led to the inescapable conclusion that the present compensation scheme is wholly and utterly inadequate. First, under the FSIA and FTCA, the ability to sue at all boils down to, in essence, the height of the vehicle at the time the incident giving rise to liability occurs. These types of arbitrary distinctions have been criticized both as they applied to the sea and territorial air space. Secondly, and more importantly, in light of the lack of any tort standard in outer space whatsoever, it is becoming increasingly clear, as space exploration and travel continues, that a federal statutory body of law be promulgated to govern all U.S.-based space liabilities and remedies. The needed body of law would not only cover the compensation scheme itself, but

¹⁸⁴ See Judi Hasson, *Shuttle Suits Only A Matter of Time*, UPI, Feb. 16, 1986, at 2.

¹⁸⁵ See *supra* note 6 and accompanying text.

¹⁸⁶ See Theresa M. Foley, *Family of Challenger Pilot Files \$15-Million Claim Against NASA*, AVIATION WEEK, July 21, 1986, at 29.

¹⁸⁷ See Commercial Space Launch Act of 1984 (CSLA), 49 USC §§ 70101-70119.

also what law applies to a given action in space. Additionally, by promulgating a statute governing conduct in outer space, Congress may define the appropriate degree and standard of conduct.¹⁸⁸ Obviously, what constitutes the reasonable actions of a person of ordinary sensibilities (in defining the standard of care), should differ substantially from that standard of care back on earth.

Alternatively, at a minimum, to avoid future inequitable results such as occurred to the plaintiffs in *Smith v. United States* (under the FTCA) and *Saudi Arabia v. Nelson* (under the FSIA), both statutes should be amended to provide for liability based upon incidents occurring in the sovereignless regions of outer space. In lieu of this, at least as it relates to the FTCA, the courts should be willing to effectuate the congressional purpose of "justice and fair play" to the application of the FTCA to those unique areas, areas like outer space—clearly beyond the consciousness of the drafters in 1946.

¹⁸⁸ That is, the current "reasonable man" test of negligence may be a very high standard when dealing with the fragile and confined environment of vehicles in space. Congress may wish to reduce the "reasonable man" standard of care to continue encouraging the exploration and use of outer space.