ISSL - 92-0.002

The Developing US Law of Liability Applicable to Launch Agreement Parties

by

R. Bender, USA

Abstract

In the United States, cases arising from spacecraft launch mishaps may be brought in either the state or federal court system if jurisdictional requirements are met. Generally, either court system will apply choice of law principles to resolve the dispute by the law of the state with the most significant contacts to the transaction. So long as the losses involve the parties to the launch agreement and involve property damage rather than personal injury, launch exculpatory and waiver provisions will likely be enforced as the United States Commercial Space Launch Act encourages such waiver provisions. The key to a launch agreement satisfactory to all parties is to identify all relevant risks, including the risk of cancelled launches, to allocate the risk by agreement, and to insure foreseeable losses where possible.

1. Introduction

This paper examines the evolving United States domestic tort and contract law governing the liability associated with the launch of spacecraft. Consistent with Article VII of the Liability Convention[1], the United States applies its laws and those of its fifty member states to property damage and personal injury cases involving United States and foreign nationals participating in a United States space mission.[2]

In the last five years, United States courts have decided several major cases related to satellite launch mishaps. The Challenger loss, which caused the United States to reevaluate its practice of launching commercial spacecraft aboard the shuttle, has also spawned litigation against the United States alleging breach of a United States obligation to undertake future satellite launches.[3]

The referenced cases provide valuable insights on issues common to property damage and personal injury actions, namely whether United States state and federal courts will share jurisdiction over such cases and whether they will apply state or federal law.

The reported decisions and pleadings in the cases discussed in this paper comprise hundreds of pages. Of necessity, the information provided below must be in summary form.

2. Common Issues of Jurisdiction and Choice of Law

2.1 Background: The Federal Government and the Fifty States. Under its constitution, the United States government has the power to act internationally; its individual fifty member states have no foreign affairs powers. Similarly, the United States, which United States courts frequently refer to as "the federal government", has the ultimate power to regulate even intrastate activities (those activities occurring purely within one of the fifty states) if the activities materially affect interstate or foreign commerce.[4] Thus the United States government could adopt federal legislation exclusively regulating space activities and the legal consequences of space flight; it has not, however, so chosen.

2.2 Background: Powers of United States Federal and State Courts. All fifty states of the United States have state trial, appellate and supreme courts. These courts routinely resolve disputes involving contract, property and tort claims. Predominantly state law determines such cases. When transactions involve multiple states, state courts apply various principles to determine which state law applies.[5] Sometimes a state court may even apply the liability law of one state and the damage law of another.[6]

In addition, the United States has a system of federal trial and appellate courts. Federal trial courts are empowered to hear cases involving citizens of diverse states or between United States citizens and foreign nationals (so-called diversity jurisdiction); but the federal courts in these cases apply state substantive law.[7] In rare cases in which the federal government has adopted preemptive legislation relevant to a tort, contract, or property matter, state as well as federal courts must apply that federal law.[8]

Decisions of state and federal courts can be reviewed by the United States Supreme Court.

Review of state court decisions is rare absent an issue arising under the United States Constitution, a federal statute, or involving diversity jurisdiction.

2.3 Background: Jurisdiction and Choice of Law in the United States for Cases Involving Space Activities. Recognizing its obligation under Article VI of the Outer Space Treaty[9] to supervise the space activities of its nationals, the United States has enacted the Commercial Space Launch Act of 1984 to license and regulate the launch of private spacecraft.[10] But the United States has not enacted legislation expressly delegating the resolution of space related disputes to the federal courts; nor has it expressly recognized the concurrent jurisdiction of state and federal courts over such cases; nor generally has it mandated that space disputes be resolved under federal law.[11] Thus space disputes in the United States - like admiralty and aviation cases with certain exceptions - may generally be brought in state or federal court so long as jurisdictional requirements are met.[12] The applicable law will be state law unless a specific statute requires use of federal law.[13]

2.4 Choice of Law Principles in United States Cases Involving Satellite Mishaps. United States Courts, state and federal, have resolved four major cases resulting from launches in which satellites failed to achieve orbit.[14] In *Martin Marietta Corp. v. Intelsat*, Martin Marietta sought declaratory relief after its Titan III rocket failed to place Intelsat's satellite in proper orbit. Martin Marietta alleged - and the federal court agreed - that (1) Martin Marietta had only contract, not tort, duties to a satellite owner; (2) liability waiver provisions in the Intelsat-Martin Marietta launch agreement precluded suit; and (3) such waiver provisions were enforceable because consistent with the policy expressed by Congress in the Commercial Space Launch Act requiring parties to waive rights of recovery and to assume the risk of their own loss.[15]

Apart from its holding on the merits, the Martin Marietta case as well as the other footnoted cases create important principles regarding concurrent jurisdiction of American courts over space related cases and the law to be applied.[16] In two cases (*Martin Marietta* and *Lloyds*) federal courts provided the forum. In two others (*Appalachian* and *Lexington*), state courts offered relief. The defendant launcher prevailed in all cases supporting the below conclusions.

(1) General Application of State Law. Absent federal statutes[17], United States courts are likely to apply state law to resolve space related disputes - at least if the case does not directly affect the United States of America as a defendant.[18] In *Martin Marietta*, the court cited with approval many Maryland state cases when analyzing the issues presented. Only when confronted with the language of the Commercial Space Launch Act on the narrow issue of Congressional approval of liability waiver clauses did the court resort to concerns of federalism. Similarly in *Appalachian Ins. Co.* v. *McDonnell Douglas Corp.*, the court relied predominantly on California cases in enforcing applicable launch exculpatory clauses which the court found had been freely negotiated in private, voluntary transactions. The Appalachian case involved the failed launch of Western Union's Westar IV from the United States space shuttle when the satellite payload assist module malfunctioned and failed to boost the satellite into geostationary orbit after the shuttle properly released the satellite into lower earth orbit.

(2) Federal Support for Launch Waiver Provisions. As the Martin Marietta court noted:

> "...Congress created a comprehensive regulatory scheme to allocate tort liability among all commercial space launch participants, including the government. The 1988 Amendments to the Act provide that 'each license shall require the licensee to enter into reciprocal waivers of claims with [launch participants]; each party agrees to be responsible for any property damage or loss it sustains or for any personal injury to, death of, or property damage or loss sustained by its own employees resulting from activities carried out under the license.' 49 U.S.C. app. §2615(a)(1)(C). The Act also required launch providers to insure against injuries sustained by third parties. 49 U.S.C. app. §2615(a)(1)(A).'"

Thus the court held that the Congress had established a strong legislative policy in favor of waiver provisions in launch agreements.

(3) Effect of Choice of Law Provisions. Under the analysis above, satellite owners launching satellites aboard United States spacecraft may expect launch exculpatory, indemnity, and insurance provisions in launch agreements to be enforced when the case is resolved under "American" law.[19] But suppose

the launch agreement contains a "choice of law" provision in which the parties have agreed to resolve the dispute according to the law of a foreign country?

As a general rule, United States courts will enforce freely negotiated choice of law provisions so long as they do not conflict with clearly established, significant public policy.[20] But as the *Martin Marietta* court noted, that case presented the rare instance in which Congress has actually applauded the creation of contractual waiver provisions. As yet unresolved is what action courts would take if confronted with a launch agreement choice of law provision and foreign law less supportive of waiver provisions.

In *Certain Underwriters at Lloyd's* v. *McDonnell Douglas*, the launch agreement required that disputes be governed by the laws of India.[21] McDonnell filed the declaration of an Indian Law expert stating that Indian law supported the enforceability of such wavier provisions. Thus, the court was not required to decide the issue.

3. Substantive Issues Involving Launch Agreements and Satellite Mishaps

As spacecraft technology improves and launch systems become more competitive, the variety and availability of launch waiver provisions will change. Consequently, it is helpful to examine various issues courts must confront to resolve satellite cases.

3.1 Causes of Action: Tort and Contract. Not surprisingly, inventive plaintiffs' counsel faced with the anticipated defense of contract waivers, allege various causes of action to overcome the defense: chiefly gross negligence and strict liability. Many state courts of the United States enforce contract waiver provisions only as to a defendants' ordinary negligence. In such states, defendants bear the risk of loss attributable to their gross negligence or to strict liability laws on the rationale that enforcement of the waivers would encourage reckless conduct or defeat strongly expressed legislative intent.

In *Martin Marietta,* supra, the court held Intelsat could state no cause of action in tort:

> "The decisions [the court here referenced several Maryland cases] recognize the fundamental distinction between claims in tort and claims in contract - contract duties are those specifically agreed upon by the parties, while tort duties are those

> imposed by the state for the purpose of protecting a vulnerable party. ...[I]n those instances where the relationship between parties is purely contractual, and the heart of plaintiff's claim is the defendant's failure to perform the contract, contract damages will suffice to compensate the plaintiff - no extra protection for the parties is necessary....
>
> "Normally, contractual damages are sufficient for two reasons. First, where the relationship is purely contractual and the injury purely economic, parties have an opportunity to insure against such economic losses.... Second ... where parties are equally sophisticated in the general ways and affairs of business, the parties are in a position to contractually allocate risks among one another."[22]

Note particularly the court's observation that parties should be allowed to allocate purely economic loss among themselves.[23]

3.2 Enforceability of Waivers Extending to Spacecraft Manufacturers. The premise underlying enforcement of exculpatory clauses is that parties to a contract may allocate their responsibilities and losses. But the launch waiver provision may also allocate losses caused by persons not a party to the launch agreement, namely the spacecraft manufacturer. Are such attempts to extend the benefit of the waiver to third parties also enforceable?

The described practice is common and enforceable in admiralty practice both within and outside the United States. Vessel carriers frequently extend the benefit of exculpatory provisions in bills of lading to agents and independent contractors of the carrier such as stevedoring companies which load and unload the cargo.[24]

In the *Appalachian* case, Intelsat argued that even if it was barred from suing McDonnell Douglas, it retained its rights against the manufacturers and suppliers of the defective spacecraft components: Morton Thiokol and Hitco. The court disagreed finding that the launch agreement extended the protection of the waiver provisions to subcontractors assisting McDonnell Douglas.[25]

3.3 Waiver of Rights of Subrogation. Despite the above described waivers in launch agreements, the incentive for insurance companies to sue remains significant due to the size of the losses paid. Of course, under United States law,

insurance companies have no rights greater than their insureds.[26] But the prudent spacecraft operator will not rely alone on waivers of satellite owners. Insurance policies provided by satellite owners should expressly provide for a waiver of the insurance carrier's rights against the owner and operator of the launch vehicle and their contractors and suppliers. Accordingly, copies of applicable insurance policies as well as the launch agreement should be carefully examined.

4. Other Damages: Negotiating Satellite Launch Agreements

4.1 Damages in the Event of Launch Failure. The satellite owners in the foregoing cases received insurance payments to purchase replacement satellites.[27] But rarely will insurance cover all possible losses. Communication satellites may easily cost $100 million dollars and the cost of launch alone may approach the value of the satellite.[28] The satellite owner may therefore wish to bargain for certain damages in the launch agreement. Of course, the competitiveness of the launch market as well as sophistication of the parties will determine the launch agreement terms. Typically, the satellite owner may expect to receive a free relaunch within a specified time if the original launch fails. Satellite owners may further protect their interests by conditioning launch payment on a successful launch with the satellite payment being held by a mutually agreed escrow agent to ensure proper transfer on completion of a successful launch.

4.2 Breach of Launch Contracts: Refusal to launch. Satellite owners can be damaged by the refusal of a spacecraft owner to launch the satellite as well as by a defective launch. Conversely, a spacecraft owner who wishes to cancel launches for apparently good reasons may be harmed if the terms of a launch contract do not permit cancellation of the launch. Little law exists on the subject but two recent cases result from a change in United States policy after the Challenger explosion.

Following the Challenger explosion, the United States reevaluated its policy of launching satellites aboard the shuttle. The President concluded that human life should not be risked to launch satellites unless the satellites were "shuttle unique" or involved national security concerns and that promotion of the United States commercial launch industry would benefit from minimizing future shuttle satellite launches. The President's decision resulted

in the cases of *American Satellite Company* v. the *United States* and *Hughes Communications Galaxy, Inc.* v. *United States*.[29]

The American Satellite Company ("ASC") complaint alleges that by refusing to launch its satellite, the United States breached its 1984 contract with ASC causing ASC to incur approximately $70,000,000 of additional costs to launch aboard a Delta expendable launch rocket in lieu of the shuttle. Although the court dismissed Count I of ASC's complaint by finding the United States had no obligation to provide an expendable launch vehicle, as of the writing of this paper, the case proceeds against the government on other theories. ASC alleges NASA (1) failed to properly discover defects in the shuttle and timely advise ASC of the need to make alternate arrangements, (2) failed to reschedule cancelled flights in an equitable manner, and (3) unconstitutionally seized its property interests in violation of the Fifth Amendment to the United States Constitution by attempting to cancel the launch agreement without paying ASC fair compensation.

Similarly, Hughes in its complaint alleges the government repudiated its obligations by refusing to launch any of the Hughes satellites. Hughes alleges $234.89 million in extra launch costs, $47.12 million in added insurance premiums, and $6.45 million in added satellite configuration expenses.[30] Hughes relies on an agreement with the government which required the government to use its "best efforts" to launch 10 Hughes satellites during space shuttle flights.

Regardless of the outcome of the ASC and Hughes suits, the lesson learned is that both the satellite and spacecraft owners must consider possible losses resulting from cancelled flights as well as flight malfunctions when negotiating launch agreements.

4.3 The Bargained Rights of Satellite Transponder Users. Discussions above focused on satellite and spacecraft owners affected by a defective launch. Other parties may be harmed by a defective launch. When a launch is only partially successful, issues also arise regarding the respective rights of the satellite owner and the proposed users of the satellite transponders. If a satellite is partially damaged during launch resulting in satellite transponders being inoperable, which of the proposed users may use the undamaged transponders? The answer depends on the transponder use agreement terms. If the law applied to space activities

follows admiralty precedents, transponder lessees of satellites launched may have no rights against parties causing a defective launch.[31]

5. Conclusions

Though not yet addressing all issues which may arise from satellite launches, the American law governing such launches now provides sufficient certainty to guide spacecraft and satellite owners and their insurance carriers. In comparison, the law governing launches aboard Soviet and Chinese spacecraft and even the ESA Ariane has yet to develop.[32] The primary conclusion emerging is that parties bargaining for their contract rights may expect them to be enforced in American courts.

---

[1] Convention on International Liability for Damage Caused by Space Objects, Oct. 9, 1973, 24 U.S.T. 2389, T.I.A.S. 7762, 961 U.N.T.S. 187 (entered into force for the United States Oct. 9, 1973) ("Liability Convention"). 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... or during such time as they are in the immediate vicinity of a planned launching or recovery areas as the result of an invitation by that launching State."

[2] Article XII of the Liability Convention requires that international law be used to resolve disputes arising from harm caused by spacecraft involving harmed plaintiffs who were not participating in the space mission so long as the harmed plaintiffs do not share the nationality of the spacecraft operator. Thus, this article does not discuss legal principles applied when one spacecraft or multiple spacecraft of different nationalities not involved in a common mission harm third parties. The well known crash of the Soviet Cosmos 954 satellite into Canada in 1978 exemplifies such cases. That case involved Canada's claim for search and rescue and clean up costs generated by the crash of a nuclear powered Soviet satellite into a remote Canadian area. The Soviet Union disputed the amount of damages claimed by Canada but settled the case. Though the United States assisted Canada in searching for the downed satellite, the United States did not file a claim with the Soviet Union nor did Canada include in its claim to the Soviets the value of services supplied by the United States. For a discussion of the Cosmos 954 incident, see Cohen, "Cosmos 954 and the International Law of Satellite Accidents," 10 Yale J. Int'l L. 78 (1984). The reference in the ISSL paper to "United States space missions" refers to launches by either the United States government or its nationals.

[3] A discussion of the personal injury actions resulting from the Challenger explosion is also beyond the scope of this article. For an excellent discussion of those suits, see Paul Dembling & Richard C. Walters, "The 1986 Challenger Disaster: Legal Ramifications," 19 J. Space L. 1 (1991). The United States government and shuttle manufacturer, Morton Thiokol, settled most of the suits filed on behalf of the heirs of the crew and passengers killed by the explosion of the United States space shuttle Challenger.

[4] See the many annotations to Article I, Section 8, cl. 3 of the United States Constitution. The Constitution with case annotations is reproduced at the beginning of the United States Code Annotated (U.S.C.A.).

[5] For instance, state courts in tort cases may apply the law of the place of injury, the law of the place with the most significant contacts to the parties, or the law of the forum among others. Article IV, Section 1 of the United States Constitution requires each member state of the United States to give "full faith and credit" to the laws of other states.

[6] See for instance the aviation accident case of *Pearson* v. *Northeast Airlines, Inc.* 309 F.2d 553 (2d Cir. 1962), cert. den. 372 U.S. 912 (19). See also *Foster* v. *United States*, 768 F.d 1278 (11th Cir. 1985) which applied New York law to certain claims and California law to others.

[7] *Erie R.R. Co.* v. *Tompkins*, 304 U.S. 64 (1938). For a recent discussion of *Erie,* see H. Abrams & G. Gelfand, "Putting Erie on the Right Track," 49 Univ. of Pittsburgh L.R. 937 (1988).

[8] Federal laws creating various rights - such as worker safety laws - are common in the United States and serve as an independent basis for federal court jurisdiction even when all affected parties reside in the same state. But ninety percent of the tort laws, legislative and judge-made (all states of the United States are common law states whose powers to "interpret" the laws often equate to creating law, either because gaps exist in the legislated law or because ambiguities in the law must be resolved according to legislative intent), derive from the states.

[9] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, done Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. 6347, 610 U.N.T.S. 205 (entered into force for the United States Oct. 10, 1967). Article VI Excerpt:

"States Parties to the Treaty shall bear international responsibility for national activities in outer space...whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, ... shall require authorization and continuing supervisions by the appropriate State Party to the Treaty...."

[10] As amended by the 1988 amendments, the Act is found at 49 U.S.C. app. §§2601-2623.

[11] The Commercial Space Launch Act (CSLA) does provide in Section 2620:

> "No State or political subdivision of a State may adopt or have in effect any law, rule, regulation, standard or order which is inconsistent with the provisions of this chapter. Nothing in this chapter shall preclude a State or a political subdivision of a State from adopting or putting into effect any law, rule, regulation, standard, or order which is consistent with this chapter and is in addition to or more stringent than any requirement or regulation issued under this chapter."

With the exceptions noted in this paper, because the CSLA does NOT create a general body of federal tort or contract law governing space activities, state legislation and judicial decisions may create the rules used to resolve space disputes.

In 1968, then Senator Tydings introduced a bill to improve the judicial machinery by providing for federal jurisdiction and a body of uniform federal law for cases arising out of aviation and space activities. S. 3305, S. 3306 and 4089, 90th Cong., 2d Sess. (1968). The impetus for the bill died with Senator Tydings the following year.

[12] Federal courts remain the sole domain of certain admiralty cases, primarily those involving in rem actions against vessels or cargo. To file space related cases in federal court, the plaintiff may need to show diversity of citizenship. Parties thus far have been unable to convince federal courts that an accident involving a spacecraft automatically raises federal questions. In the Appalachian Ins. Co. and Lexington Ins. Co. cases referenced in footnote 13, the

federal court rejected the attempt of the defendants to remove the cases to federal court in Los Angeles, California. See central district case #s 86-1003-HLH and 86-1661 HLH (C.D.Cal.) In these cases, the court found that federal law raised only questions of "defensive preemption" rather than jurisdictional preemption. See Franchise Tax Board v. Construction Laborers Vacation Trust, 463 U.S. 1 (1983). Defendants argued the case should be controlled by the NASA Act of 1958, 42 U.S.C. §2458(b); the Commercial Space Launch Act of 1984, 49 U.S.C. §§ 2601 et seq.; and the Launch Services Agreement used by NASA and its satellite launching customers.

13 Among the fascinating issues presented by the dissolution of the Soviet Union and the formation of a loose commonwealth of the former Soviet republics, is how the Commonwealth will allocate jurisdiction and determine choice of law principles applicable to future space missions carried out by Russia or other republics. Will, for instance, the United States system serve as a model for resolution of domestic space disputes arising from Russian space missions? Comparable issues may also arise as to what jurisdictional and choice of law issues arise from launches aboard the Ariane or Chinese Long March. The author would be interested in receiving the views of other ISSL members familiar with these legal systems.

14 See (1) *Certain Underwriters at Lloyd's* v. *McDonnell Douglas Corporation* United States District Court, Middle District of Florida Orlando Division, Case No. 90-833 Civ.-Orl-18; (2) *Martin Marietta Corp.* v. *Intelsat*, 763 F. Supp. 1327 (D.Md.1991); (3) *Appalachian Ins. Co.* v. *McDonnell Douglas Corp.* 214 Cal. App. 3d 1, 262 Cal. Rptr. 716 (1989); and (4) *Lexington Insurance Co.* v. *McDonnell Douglas Corp. and Morton Thiokol, Inc.* in Orange County Superior Court in California in Case No. 481713 in 1989. For a more detailed account of the facts leading to the Appalachian case, see 18 J. Space L. 41.

15 The court relied on Section 16(a)(1)(A,C) of the Act found at 49 U.S.C. A. App. §2615(a)(1)(A,C). For sample "interparty waiver of liability during STS operations" language, see 48 Federal Acquisition Regulations Revised as of October 1, 1990 comprising Part 1852 (Solicitation Provisions and Contract Clauses) of Chapter 18 National Aeronautics and Space Administration, Subchapter H, Clauses and Forms. See Section 1852.228-72.

16 In one case, *Lexington Insurance Company* v. *McDonnell Douglas* , McDonnell Douglas was forced to trial when the court held the launch agreement exculpatory provisions raised triable issues of fact but McDonnell succeeded in persuading the court it had committed no negligence. *Lexington* involved the loss of the Indonesian satellite Palapa B-2 which was lost at the same time as the above referenced Western Union satellite when its payload assist module similarly malfunctioned.

17 Among the federal statutes having a significant impact on space activity which are not discussed here: (1) United States antitrust laws, see *Alpha Lyracom Space Communications, Inc.* v. *Communications Satellite Corporation* 946 F.2d 168 (2d Cir. 1991) in which the court of appeal reinstated an antitrust suit against Comsat, the American signatory to the Intelsat global telecommunications agreement, so long as the complaint limited its allegations to antitrust activities by Comsat as a common carrier rather than as the United States representative in Intelsat; (2) patent laws, see *Hughes Aircraft Co. v. United States* 717 F.2d 1351 (1983) holding the United States had infringed a Hughes satellite patent; (3) the National Environmental Policy Act ("NEPA") which spawned a fruitless attempt by a Florida environmental organization to halt the launch of the plutonium laden Galileo space probe in 1989 (See *Florida Coalition for Peace and Justice* v. *George Herbert Walker Bush,* No. 89-2682 (D.D.C. 1989); and (4) the International Traffic in Arms Regulations (ITAR) and Arms

Export Control Act (AECA) (See 22 C.F.R. §121.1 (1990) and 22 U.S.C. 2751 et. seq. (West 1990) which regulate the export of United States satellites and space launch equipment. Note that these statutes deal with specific "police power" concerns rather than every day principles of tort, contract and property law.

[18] Suits against the United States for accident losses must be brought in federal court. See 28 U.S.C. §1346(a)(2) and (b). Note that the United States government is immune from suit unless a specific statute waives governmental immunity. Actions based on tort against the United States are usually based on the Federal Tort Claims Act, 28 U.S.C. 2671-80 as well as miscellaneous other provisions, which permits suits based for negligence but not strict liability. Section 2680(k) of the FTCA bars suits which arise in foreign countries. Though the issue has not yet been definitively resolved, arguably this section does not bar suits involving United States spacecraft accidents in outer space because the Outer Space Treaty bars any nation from appropriating space. The United States has moreover in 18 U.S.C. 7 stated its intent to extend its admiralty jurisdiction to space and the Outer Space Treaty in Article VIII expressly recognizes that states retain jurisdiction over their spacecraft as well as those of their nationals. For accidents occurring at a federal launch facility, such as Cape Canaveral in Florida, "federal law" governs but federal law borrows the law of the State in which the facility is located. See *Quadrini* v. *Sikorsky Aircraft Div.*, 425 F. Supp. 81 (D.Conn. 1977); Lord v. Local Union No. 2088, 646 F.2d 1057 (5th Cir. 1981), cert. den., 458 U.S. 1106 (1982). The FTCA also requires courts to apply the law of the relevant state to the incident - as opposed to a federally mandated law of torts. Nevertheless, the author does not regard the issue of the law applicable to government involved spacecraft liability or even United States private sector liability as yet settled. Admiralty cases in the United States are resolved primarily under a uniform federal law while domestic United States aviation cases are resolved primarily by the law of the states. Various policy arguments beyond the scope of this paper suggest the Courts or Congress could shape United States domestic space law according to admiralty principles. Although Erie, supra note 7, requires Federal courts to apply "state" law to resolve diversity disputes, the Supreme Court on the same day it decided Erie decided *Hinderlider* v. *La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92 (1938) which acknowledged the need to create a federal common law in certain cases such as the resolution of an interstate stream dispute.

[19] The court in *Martin Marietta* made an interesting distinction. Martin Marietta argued that the Commercial Space Launch Act by its terms mandated launch waiver provisions thus assuring Marietta of an automatic victory. The court held instead that the launch agreement must itself contain appropriate waiver provisions which would be upheld if sufficiently clear. Had Marietta prevailed in its argument, courts would not need to examine the clarity of waiver provisions or the intent of the parties signing them.

[20] See for instance *The Bremen* v. *Zapata Off-Shore Co.*, 407 U.S. 1, 92 S.Ct. 1907 (1972) in which the United States Supreme Court noted:

> "For at least two decades, we have witnessed an expansion of overseas commercial activities by business enterprises based in the United States. ...The expansion of American business and industry will hardly be encouraged if , notwithstanding solemn contracts, we insist on a parochial concept that all disputes must be resolved under our laws and in our courts. ...We cannot have trade and commerce in world markets and in international waters exclusively on our terms governed by our laws, and resolved in our courts."

The United States Supreme Court has held that forum selection clauses attempting to select the appropriate venue for a dispute

raise questions of federal law even in a diversity action. See Stewart Organization, Inc. v. Ricoh Corp., 487 U.S. 22, 108 S.Ct. 2239 (1988). However, denial of a motion to dismiss based on a forum selection clause is not immediately appealable to the Supreme Court under 28 U.S.C. 1291. See Lauro Lines S.R.L. v. Chasser, 490 U.S. 495, 109 S.Ct. 1976 (1989) which arose out of the Achille Lauro hijacking and a forum selection clause printed on a passenger ticket.

[21] See p. 4 of the Motion of McDonnell Douglas Corporation for Summary Judgment ("Motion") filed on September 30, 1991. As to how counsel for a party proves the content of foreign law in a United States Court, see the excellent article "44.1 Ways to Prove Foreign Law," by Judge John R. Brown of the Unites States Court of Appeals for the Fifth Circuit (referring to Rule 44.1 of the Federal Rules of Civil Procedure) in 9 The Maritime Lawyer 179 (1984).

[22] 763 F. Supp. at 1331-1332.

[23] Other United States courts of appeal have reached the same result. See *Arkwright-Boston Manufacturers Mut. Ins. Co.* v. *Westinghouse Electric Corp.* 844 F.2d 1174 (5th Cir. 1988).

[24] See *Adler* v. *Dickson* (*The Himalaya*), [1955] 1 Q.B. 158 [1954] 2 Lloyd's Rep. 122 (Q.B. 1954), appeal dismissed, [1954] 2 Lloyd's Rep. 267. But see *Taisho Marine & Fire Ins. Co.* v. *The Gladilus*, 762 F.2d 1364 (9th Cir. 1985) which refused to extend the Himalaya clause to a trucking company. 1

[25] *Appalachian Ins. Co* . v. *McDonnell Douglas Corp.* 214 Cal. App. 3d 1 at 12-12-17. Note that in suits against the United States rather than private parties, waiver provisions may particularly be enforced because of the so called "government contractor's defense". Pursuant to this defense, manufacturers of government military equipment usually may not be sued. See *Boyle* v. *United Technologies Corp,* 487 U.S. 500 , 108 S.Ct. 2510 (1988) in which the Court held that liability for design defects in military equipment cannot be imposed when (1) the United States approved reasonably precise specifications; (2) the equipment conformed to the specifications; and (3) the supplier warned the United States of any dangers known to it but not the government. The doctrine rests on the premise that if the government is immune from suit, its manufacturers should be similarly immune. Otherwise, defendant manufacturers losing to injured plaintiffs are likely to file suits against the government alleging that defective equipment was manufactured pursuant to government specifications thus justifying suits for implied indemnification. In short, if suits against government manufacturers are permitted, the government - in the absence of the government contractor's defense - may through manufacturer indemnification actions be required to pay indirectly what harmed plaintiffs can not recover directly. Extending waiver provisions to such manufacturers thereby avoids battles over the legitimacy of the government contractor defense. Preliminary rulings in cases filed following the Challenger disaster suggest the defense will also be allowed for government sponsored spacecraft, there the shuttle.

[26] See *United States* v. *Munsey Trust Co.*, 332 U.S. 234, 242 (1947) ("...[I]t is elementary that one cannot acquire by subrogation what another whose rights he claims did not have.")

[27] In several instances, satellites lost have been salvaged thus allowing insurance carriers to recoup some of their losses.

[28] The Intelsat satellite in the Martin Marietta case cost approximately $112 million and the estimated cost of rescuing it, $90 million.

[29] 20 Cl. Ct. 710, 1990 U.S. Cl. Ct. Lexis 239 and Cls.Ct. No. 91-1032-C.

[30] See 1991 BNA, Federal Contracts Report of April 1, 1991, Vol. 55, No. 13 at page 427.

[31] Under the doctrine set forth in *Robins Dry Dock & Repair Co. v. Flint,* 275 U.S. 303, 48 S.Ct. 134 (1927) certain vessel charterers who are damaged by the vessel being out of service after vessel accidents and subsequent vessel repairs are unable to recover loss of use damages from third parties. The Robins doctrine effectively bars damages even if it was reasonably foreseeable that a vessel operated under a charter party (lease).

[32] My good friend Dan Byrnes, relying on his contacts with the European Space Agency, advises that ESA has for many years been able to amicably settle disputes arising from satellite procurement contracts. Although these contracts provide for arbitration of disputes, the arbitration clause apparently has yet to be invoked. The author would be interested in any information readers may have as to actual or threatened litigation or arbitration arising from non US launches.