
G. Nelson Smith III
DEFECTIVE MILITARY AIRCRAFT AND THE GOVERNMENT CONTRACTOR DEFENSE: THE CONSTITUTIONAL DIFFICULTIES THAT ARISE EVEN AFTER BOYLE V. UNITED TECHNOLOGIES CORP.

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THE FEDERAL GOVERNMENT spends literally billions of dollars on military equipment each year.¹ Unfortunately, many military products, like those sold to ordinary consumers, contain defects which can injure or kill.² Sometimes, injury or death results from a design defect that is prevalent in all streams of commerce, including the military. Consequently, the manufacturer is unable to escape liability.³ An example of such product is

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² See Note, Liability of a Manufacturer, supra note 1, at 1025.

³ Id. In recent lawsuits, several courts have determined that the defendants may be held liable because they failed to show that defects in military equipment were not a result of negotiations between the defendants and the military. In their holdings, the courts readily implied that liability of designers in military products liability cases is derived from the designers’ inability to prove that the alleged defect is not in the ordinary stream of commerce. In Johnston v. United States, 568 F. Supp. 351 (D. Kan. 1983), the employees of a business engaged in the repair and overhaul of military aircraft instruments brought an action against the manufacturer alleging that these defective instruments caused the employees to contract cancer or leukemia. Johnston, 568 F. Supp. at 351-52. The manufacturers argued that the instruments were produced according to the specifications of
a can of tainted beans which, if sold to the military, would hold the manufacturer legally responsible.\textsuperscript{4}

On other occasions, however, the military products sold by manufacturers must be "stepped up" from their normal performance level to ultra-high or maximum performance levels, in order to enhance defense and ensure the safety of the country.\textsuperscript{5} This process is usually a reflec-

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\textsuperscript{4} In McKay v. Rockwell Int'l Corp., 704 F.2d 444 (9th Cir. 1983), \textit{cert. denied}, 464 U.S. 1043 (1984), the court recognized the difficulty encountered in determining what products are "military equipment" and which products are those in the ordinary stream of commerce:

We recognize that the term "military equipment" is somewhat imprecise, and that at some point lines will have to be drawn. We need not do so here. The line, however, lies somewhere between an ordinary consumer product purchased by the armed forces — a can of beans, for example — and the escape system of a Navy RA-5C reconnaissance aircraft. The latter falls within the term while the former does not.

\textit{Id.} at 451. The court in McKay was reluctant to determine the meaning of the term "military equipment."

\textsuperscript{5} This principle was explicitly outlined by the Ninth Circuit:

\[\text{[I]}\text{t should be noted that in setting specifications for military equipment, the United States is required by the exigencies of our defense effort to push technology towards its limits and thereby to incur risks beyond those that would be acceptable for ordinary consumer goods. A supplier is frequently unable to negotiate with the United States to eliminate those risks.}\]

\textit{McKay}, 704 F.2d at 449-50. The \textit{McKay} court derived this principle by interpreting \textit{In re "Agent Orange" Prod. Liab. Litig.}, 506 F. Supp. 762 (E.D.N.Y.), \textit{rev'd on other grounds}, 635 F.2d 987 (2d Cir. 1980), \textit{cert. denied}, 465 U.S. 1067 (1984). In \textit{In re Agent Orange}, Vietnam soldiers brought suit against the manufacturer of the contaminated defoliant "Agent Orange" for injuries sustained as a result of exposure to the defective product. \textit{In Re Agent Orange}, 506 F. Supp. at 768-69. In language similar to that of McKay, the court stated:

Where, as here, manufacturers claim to have been compelled by federal law to produce a weapon of war without ability to negotiate specifications, contract price or terms, the potential for unfairly imposing liability becomes great. Without the government contract defense a manufacturer capable of producing military goods for government use would face the untenable position of choosing between severe penalties for failing to supply products necessary to conduct a war, and producing what the government requires but at a contract price that makes no provision for the need to insure against potential liability for design flaws in the government's plans.

\textit{Id.} at 794; \textit{see also} Note, \textit{Government Contractor Defense To Strict Products Liability}, 49 J. AIR L. & COM. 671, 686-88 (1984) (discussing the three-part test used by the \textit{In re...
tion of either a military contract between the government and a private corporation\(^6\) or a contractual specification between the same two parties.\(^7\) The specification may be

Agent Orange court to determine availability of the government contractor defense).

This policy of pushing technology beyond that used in ordinary consumer products was continued in 1986, when, on May 27, the Fourth Circuit Court of Appeals decided Boyle v. United Technologies Corp., 792 F.2d 413 (4th Cir. 1986), vacated, 108 S. Ct. 2510 (1988), Dowd v. Textron, Inc., 792 F.2d 409 (4th Cir. 1986), cert. denied, 108 S. Ct. 2897 (1988), and Tozer v. LTV Corp., 792 F.2d 403 (4th Cir. 1986), cert. denied, 108 S. Ct. 2897 (1988), all of which involved wrongful deaths that occurred as a result of defective military equipment.

\(^6\) See Note, Liability of a Manufacturer, supra note 1, at 1032, 1048-64. The contract between the contractor and the government is extremely important in order to give the contractor the authority to modify a product that is used in the ordinary stream of commerce. This privy relationship forms the basis for the government contractor defense. For a better understanding of the this defense, see infra notes 19-22 and accompanying text.

\(^7\) See id. at 1031-48. This is also known as the “government specifications defense”. Initially, both defenses were recognized and had entirely different meanings. The government specifications defense, as noted by one author, allows a contractor to escape liability for the defective design of a product it manufactures if the contractor has fully complied with government's specifications, the injury complained of is attributable to a flaw in the specifications, and the specifications were not so obviously defective and dangerous that a competent contractor would not have followed them.

Id. at 1027. The same author noted that the government contractor defense, as a more complete defense, “provides a type of immunity to a public contractor who performs in accordance with government specifications.” Id. Under the traditional approach, the government specifications defense was a defense available in negligence actions and the government contractor defense was claimed in breach of warranty and strict liability actions. See McLaughlin v. Sikorsky Aircraft, 148 Cal. App. 3d 203, 195 Cal. Rptr. 764 (Ct. App. 1983) (Wiener, J., concurring and dissenting) (discussed infra notes 207-213 and accompanying text). In McLaughlin, Judge Wiener stated, “Sikorsky appears to concede the correctness of the principle recognizing the contract specification defense has its source in ordinary negligence principles and accordingly does not apply to actions grounded in strict liability.” Id. at 214, 195 Cal. Rptr. at 770.

The belief of the court in McLaughlin was consistent with the views outlined in Johnston, where the court, making the differences between the government specifications defense and the government contractor defense crystal clear, argued:

[T]he contract specification defense applies to products manufactured to the other and specification of another, whether that other be the government or a private party. Under this defense, which is based on ordinary negligence principles, a contractor is not liable for damages resulting from specifications provided by his employer unless those specifications are so defective and dangerous that a reasonably competent contractor "would realize that there was a grave chance that his product would be dangerously unsafe."
“minimal or detailed, quantitative or qualitative, general or specific.” They may also range from “meticulous descriptions of each bearing and bushing required, to vague hopes for ‘simple’ or ‘failsafe’ products.”

Whenever there is an enhancement to an aircraft, that enhancement must be approved by the government. This may be accomplished in many ways. For example, the government may provide the specification and require the contractor to manufacture the product in accordance with the specification in order to receive the contract. This is known as the “compulsion requirement.” The government may also approve the specification designed by the contractor, either by implicit acceptance of the

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*Id.* at 746. See generally 14 C.F.R. § 43 (1988) (regulations concerning the maintenance, preventive maintenance, rebuilding, and alteration of aircraft).

*Note, Liability of a Manufacturer*, supra note 1, at 1026.

See, e.g., *Hendrix v. Bell Helicopter Textron, Inc.*, 634 F. Supp. 1551 (N.D. Tex. 1986). The court stated, “Bell was obligated to manufacture the helicopter in strict accordance with these specifications and had no authority to deviate from the approved design specifications without first obtaining approval from the Army. Failure to follow these specifications... would constitute a default under the contract.” *Id.* at 1556 (citations and footnote omitted).

equipment \(^1^4\) or through the back-and-forth conversations between the military and the contractor.\(^1^5\) Either way, if the product is enhanced or "stepped up" for military purposes, and a military employee \(^1^6\) or civilian \(^1^7\) is injured or killed as a result of the defective design of this enhancement, then the manufacturer may escape liability under the "government contractor defense."\(^1^8\)

The government contractor defense, as it is routinely known,\(^1^9\) applies only where the product in question has been manufactured pursuant to a contract with the government.\(^2^0\) This defense has been characterized as one that "allows the contractor to 'share' the government's immunity from suit on grounds of public policy."\(^2^1\) The defense generally "shields a manufacturer from liability when such work is performed in accordance with government specifications absent any willfully tortious conduct by the independent contractor."\(^2^2\)

Over recent years, this defense has received a great deal of attention, particularly as it relates to alleged defects in military aircraft. Thus, the purpose of this casenote is a narrow one which concentrates solely on the historical development of the government contractor defense as applied to defective military aircraft. More importantly, this article does not purport to determine whether or not the

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\(^1^5\) See Boyle v. United Technologies, 792 F.2d at 414; Tozer, 792 F.2d at 407; Koutsoubos, 755 F.2d at 355.

\(^1^6\) See supra notes 13-15 and cases cited therein.

\(^1^7\) See Ramey, 656 F. Supp. at 985.

\(^1^8\) See supra notes 1-15 and accompanying text.

\(^1^9\) See supra note 7 for a discussion of the difference between the government contractor defense and the government specifications defense.


\(^2^1\) \textit{Id.; see also Note, Liability of a Manufacturer, supra note 1, at 1049.}

defense is appropriate when the government is involved in the development of the aircraft. That task is left to other authors.\textsuperscript{23} Rather, this note seeks to examine the historical development of the government contractor defense and the constitutional and policy ramifications behind the defense as it relates solely to defective military aircraft.

I. BACKGROUND

The United States military uses several types of aircraft, ranging from dirigibles,\textsuperscript{24} to helicopters,\textsuperscript{25} to single-engine airplanes,\textsuperscript{26} to jet fighters\textsuperscript{27} traveling well beyond the


\textsuperscript{24} See Montgomery v. Goodyear Tire & Rubber Co., 231 F. Supp. 447 (S.D.N.Y. 1964), aff'd, 392 F.2d 777 (2d Cir. 1968) (plaintiffs alleged negligence in manufacture and proper seaming of a dirigible which crashed, resulting in the death of servicemen).


\textsuperscript{26} See McCullough v. Beech Aircraft Corp., 587 F.2d 754 (5th Cir. 1979) (an experienced military pilot, flying a single engine aircraft as part of a United States
speed of sound. Because the military uses so many different aircraft, each modified to conform to military needs, design defects occur frequently. These defects have ranged from improper seaming of a balloon, to defective rotor systems in helicopters, to malfunctioning ejection seats in airplanes. As a result of the diversity of aircraft and potential defects, the elements used to establish the government contractor defense vary dramatically from jurisdiction to jurisdiction.

Initially, however, the development of the sovereign immunity concept travelled one uniform path. Historically, the government contractor defense derived its sovereign immunity status from the medieval doctrine that the monarch ruled by divine right and that the king could do no wrong. While America repudiated the political theory that "the King can do no wrong," a legal doctrine derived from it: "the Crown was immune from any suit to which it had not consented." This privilege was later "invoked on behalf of the Republic and applied by our courts as vigorously as it had been on behalf of the Crown." In 1821, for example, the Supreme Court decided *Cohens v.*

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28 Here, with speed and other parameters being increased on military jets, it is implicit that these jets may reach speeds well beyond the speed of sound.

29 See infra note 30-32 and accompanying text.


31 See *Dowd*, 792 F.2d at 409; *In re Mannheim*, 769 F.2d at 115; *Hendrix*, 634 F. Supp. at 1551; *Ulmer*, 380 F.2d at 549; Melton v. Borg-Warner Corp., 467 F. Supp. 983 (W.D. Tex. 1979).


33 Compare *Tozer*, 792 F.2d at 403 and *McKay*, 704 F.2d at 444 with *Shaw*, 778 F.2d at 736 and *Koutsoubos*, 755 F.2d at 352. In addition, several different views on the government contractor defense are explained later in this article.


35 *Feres*, 340 U.S. at 139.

36 Id.
Virginia,\textsuperscript{37} which established this sovereign immunity doctrine without citing any authority or explanation.\textsuperscript{38}

One hundred and twenty-five years later, however, Congress passed the Federal Tort Claims Act (FTCA).\textsuperscript{39} Under the FTCA, the government agreed to be sued for its wrongs where a private person would have been liable under like circumstances.\textsuperscript{40} The primary purpose and rationale for the FTCA was to extend a remedy to those who had been without one.\textsuperscript{41} The FTCA, however, did not do away with governmental immunity entirely, nor was this its intention.\textsuperscript{42} For example, Congress explicitly

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\item[{\textsuperscript{37}}] 19 U.S. (6 Wheat) 264, 411-412 (1821).
\item[{\textsuperscript{38}}] Id. at 412; see also, Note, Government Contractor Defense to Strict Products Liability, supra note 23, at 675-76.
\item[{\textsuperscript{39}}] Here, the Congress passed several acts which permitted the government to be sued. They include 28 U.S.C. §§ 1291, 1346, 1402, 1504, 2110, 2402, 2411-12, and 2671-80 (1982).
\item[{\textsuperscript{40}}] See 28 U.S.C. § 1346.
\item[{\textsuperscript{41}}] Feres v. United States, 340 U.S. 135, 139 (1950).
\item[{\textsuperscript{42}}] See 28 U.S.C. § 2680, which states the following exceptions which exclude the government from being sued.
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Particular Proceedings § 2680. Exceptions The provisions of this chapter and section 1346(b) of this title shall not apply to —

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

(b) Any claim arising out of the loss, miscarriage, or negligent transmission of letters or postal matter.

(c) Any claim arising in respect of the assessment or collection of any tax or customs duty, or the detention of any goods or merchandise by any officer of customs or excise or any other law-enforcement officer.

(d) Any claim for which a remedy is provided by sections 741-752, 781-790 of Title 46, relating to claims or suits in admiralty against the United States.

(e) Any claim arising out of an act or omission of any employee of the Government in administering the provisions of sections 1-31 of Title 50, Appendix.

(f) Any claim for damages caused by the imposition or establishment of a quarantine by the United States.


(h) Any claim arising out of assault, battery, false imprisonment, false arrest, malicious prosecution, abuse of process, libel, slander,
excluded from liability any claim arising out of "combatant activities" during time of war. The courts reasoned that this defense was necessary; otherwise, manufacturers might withhold essential equipment from the military because they considered the design to be imprudent or dangerous. This was one of the main policy reasons behind the establishment of the government contractor defense as applied to military aircraft.

II. HISTORICAL DEVELOPMENT OF THE GOVERNMENT CONTRACTOR DEFENSE AS IT RELATES TO MILITARY AIRCRAFT

Although the government contractor defense was not articulated as such in military aviation cases until 1982, there were, nevertheless, many legal precedents which dealt with the problems that arise in enhancing military

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46 Koutsoubos, 755 F.2d at 355.
aircraft. Ultimately, these decisions helped to develop the public policy rationale behind the defense.

In 1957, the Ninth Circuit decided *North American Aviation, Inc. v. Hughes*. In *Hughes*, an F-86F aircraft manufactured by the appellant and piloted by the decedent, Lieutenant Fred L. Hughes, crashed at the west end of the Los Angeles International Airport immediately after takeoff. The appellees alleged that the pilot lost control and crashed because of an explosion in the cockpit and/or possibly because of the loss of the electrical or hydraulic system. The manufacturers, however, introduced evidence that both the manufacturer and the Air Force made independent inspections of the aircraft. Yet, the court of appeals affirmed the lower court’s judgment for the plaintiff, stating:

Although the true cause of the accident will probably remain a mystery, there appear substantial evidence to support the appellee’s theory that the crash was due to a mechanical defect which developed while the machine was still in the air; in other words, a defect in the manufacture of the airplane, for which the appellant was responsible.

Four years later, the same court decided *Boeing Airplane Co. v. Brown*, in virtually the identical manner as its holding in *Hughes*. In *Brown*, the administrator of the estate sued the manufacturer of a B-52 jet bomber, alleging that the wrongful death of Major Albert K. Brown, Sr. occurred as the result of a malfunction in the aircraft’s right front alternator drive. Boeing, however, unlike the appellant in *Hughes*, concentrated its argument on an im-

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47 247 F.2d at 517.
48 Id. at 518.
49 Id. at 521.
50 Id. at 519.
51 Id. at 521.
52 291 F.2d 310 (9th Cir. 1961).
53 Id. at 312.
54 247 F.2d at 519. In *Hughes*, although the government contractor defense argument was expressed, the defendant contended mainly that it was not negligent because the decedent committed pilot-error. Id.
licit form of the government contractor defense. Specifically, Boeing solicited manufacturers to submit proposals for the design and manufacture of an alternator drive. The drive was designed and manufactured to meet required detailed performance specifications prepared by Boeing and approved by the Air Force. The trial court made no express finding that Boeing either knew of, or by the exercise of reasonable care should have known of, a defect inherent in the design and manufacture of the alternator drive by Thompson Products, Inc. Boeing alleged that this omission should have allowed them to escape liability. The court, however, rejected this argument stating:

If Thompson failed to exercise reasonable care in the design and manufacture of that component, or if Thompson or Boeing or both failed to exercise reasonable care in inspecting or testing the component, or if Boeing failed to exercise reasonable care in installing the component in the B-52 bomber or in warning the Air Force of any known defect therein, Boeing is liable for damage proximately caused thereby.

Boeing further argued that the Air Force, and not Boeing, should be held negligent, because it approved and accepted the design for the alternator drive prior to its manufacture, supervised its manufacture, monitored the qualification and production testing, and accepted the completed aircraft. The court likewise rejected this argument, stating that there was nothing in the record to indicate that the Air Force had actual knowledge of the defect. Thus, the court, concentrating not on the knowledge that the manufacturer possessed but rather on

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55 Brown, 291 F.2d at 312.
56 Id.
57 Id.
58 Id. at 313.
59 Id.
60 Id.
61 Id. at 317-18.
62 Id. at 319.
the government's lack of knowledge of the defect, affirmed the lower court's decision.\textsuperscript{63}

In 1964, however, the roots of the government contractor defense were planted in the case of \textit{Montgomery v. Goodyear Tire \& Rubber Co.}\textsuperscript{64} The plaintiffs in \textit{Montgomery} sought recovery in a wrongful death action against the manufacturer of a dirigible and the manufacturer of a warning bell device built into the aircraft.\textsuperscript{65} The plaintiffs alleged that Goodyear improperly seamed the balloon and that Edwards Company, Inc. manufactured a faulty warning system that did not sound when the balloon began to lose air.\textsuperscript{66} Goodyear and Edwards sought summary judgment, alleging that "public policy considerations governing contracts between the United States Government and weapons suppliers preclude suits by injured or deceased servicemen against the supplier."\textsuperscript{67} They further argued that some sacrifice must be made in the elements of safety for newly-developed weapon systems in order to keep the military ahead in the armaments race.\textsuperscript{68} Although the court stated that the speed at which the project must be completed is no excuse for faulty work,\textsuperscript{69} the court did entertain the defendant's government contractor defense argument, holding that:

The extent of Government control over the actual day-to-day manufacturing process is not clear. Did Government personnel prepare the seams of the ship? Did Government direct, either by contract or through inspectors, the exact method to be used to seal the seams? These are material questions for the trier of fact to determine before the proximate cause is known. This alone thwarts summary judgment.\textsuperscript{70}

\textsuperscript{63 Id.}
\textsuperscript{64 231 F. Supp. at 447 (S.D.N.Y. 1964).}
\textsuperscript{65 Id. at 449.}
\textsuperscript{66 Id.}
\textsuperscript{67 Id. at 450.}
\textsuperscript{68 Id.}
\textsuperscript{69 Id.}
\textsuperscript{70 Id. at 451.}
The importance of the holding in *Montgomery* was two-fold. For the first time, courts began to recognize the importance of the relationship between the contractor and the military as it related to the development of military aircraft. Of equal importance, however, was the fact that the court rejected Goodyear and Edwards' summary judgment motion, stating that the exact amount of control that the private corporations had over the manufacture of the dirigible was a question of fact and not a question of law.

The holding in *Montgomery* pushed New York into the forefront in establishing the government contractor defense. In 1971, the New York courts decided two other important cases which crystallized even further that state's version of the defense. In the first case, *Kropp v. Douglas Aircraft Co.*, the plaintiff sought to recover damages for the wrongful death of Charles R. Kropp, who was killed as he exited an A3A aircraft. This aircraft was delivered to the Navy pursuant to Contract No. 63-0540-b, which stated that the contractor was "to maintain the aircraft and equipment 'in accordance with the standard Naval Aircraft Maintenance Program as administered and directed by the cognizant reporting custodian'." The con-

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71 See id.
72 See id. The law today is drastically different. Now, cases seldom reach the jury. As noted supra in the text accompanying note 22, the government contractor defense shields a manufacturer from liability. Thus, the defense is determined as a matter of law. See Note, *Government Contractor Defense to Strict Product Liability*, supra note 23, at 679-88. The policy reason for making this an issue of law as opposed to a question of fact is most obvious in *Tozer* when the court stated:

> These are judgments, however, which lay men and women are neither suited nor empowered to make. There is a danger in transporting the rubric of tort law and products liability to a military setting and military technology. While jurors may possess familiarity and experience with consumer products, it would be the rare juror — or judge — who has been in the cockpit of a Navy RF-8G off the deck of a carrier on a low level, high speed fly-by maneuver.

792 F.2d at 406.

74 Id. at 450.
75 Id.
76 Id. at 451.
tract provided further that the contractor "return said property to the Government in the same condition as when received by the Contractor; except for (i) normal wear and tear . . . ."

Since the plaintiff sought to recover against both defendants, claiming negligence and defective design, the New York Eastern District Court found it necessary to trace the history of the negotiations between the government and Douglas. In holding the defendants free from liability, the court accepted the government contractor defense argument, although it did not mention the defense by name, stating:

Safety is one of the design features and, as such, is governed by these general design principles. It would be highly desirable, for example, that a plane such as the A3A have a "back-up-system," (a duplicate mechanism for each operating part of the plane) in an attempt to insure 100% reliability of the plane's systems. However, weight and size are vital considerations, particularly in military craft. Every one pound of increased weight of an airplane translates into six pounds on the over-all configuration, for increased weight increases the wing-load, requires a greater wing span and a heavier fuel load for the predetermined non-refueling flight range of the craft. For these and a variety of other reasons, back-up systems (although desirable from the standpoint of safety) are not feasible in every instance in the design and construction of a military craft such as the A3A.

Six months after Kropp, the New York Southern District

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77 Id.
78 Id. at 456. The court outlines the entire history of the development of the A3A contract. In 1947, the Navy commenced discussions with Douglas' Chief Engineer concerning its desire to obtain a jet-propelled bomber capable of carrying an atomic bomb and of taking off from and landing on a Navy [aircraft] carrier. This was to be an aircraft of higher performance than its AJ bomber (a propeller-driven aircraft) and one of high performance comparable to that of the B-47. Because the mission of the contemplated aircraft was to carry and deliver an atomic bomb, which must be armed while the aircraft is in flight, access from the cockpit to the bombbay was a sine qua non.

Id.
79 Id.
Court decided O'Keefe v. Boeing Co. in a similar fashion to that of its predecessor. In O'Keefe, the plaintiffs brought suit in a wrongful death and personal injury action for injuries sustained to passengers aboard a B-52 bomber. The plaintiffs alleged that the manufacturer of the aircraft was liable in negligence and in strict liability for defectively designing and manufacturing a welded bulkhead.

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81 See id. at 1109.
82 See id. at 1117. The plaintiffs also argued that the defendant was negligent in specifying and using a welded, rather than a forged, bulkhead; designing a bulkhead with welds in close proximity to each other; burning a weld relief hole through the bulkhead and thereby creating local stresses and areas of severe stress concentration; designing a bulkhead which, because of its geometry, the proximity of the welds, and existence of the weld relief hold, contained an area of severe stress concentration; improperly welding, so as to create a defect; failing to use accepted and available inspection techniques, such as zyglo, magnaflux, dye penetrant, and x-ray to discover the existence of flaws or defects; failing to discover the existence of the defect during the manufacturing process and before the bulkhead boxed section was completed; removing the web, or part of the web, from the bulkhead, in all production bulkheads, after the 1954 static tests showed that a crack developed at 75% of ultimate load; failing to install an access hole or otherwise make it possible to inspect the weld relief hole area on the bulkhead, in the design of the aircraft, even after the 1954 static tests showed that a crack developed there at 75% of ultimate load; failing to order or recommend the installation of an access hole, or other adequate means of inspection, after cyclic tests also demonstrated that a crack developed at the weld relief hole; failing to order or recommend the installation of an access hole, or other adequate means of inspection, after the Monticello, Utah accident in January, 1961 when the bulkhead failed at the weld relief hole area in the same place as the crack had developed in the 1954 static test and in the cyclic tests; failing to take other appropriate measures, such as recommending modifications to or replacement of the welded bulkhead, and relating such modifications or replacement to the Monticello accident and the occurrence [sic] of cracks in the same area as the Monticello failure, following receipt of information and opinions indicating [sic] a weakness of the bulkhead at the weld relief hole; failing to alert the Air Force to the existence of a safety in flight problem relating to the bulkhead, and failing to relate such a problem to the need for a retrofit on B-52s in service; affirmatively advancing theories on the cause of the Monticello accident to the Air-Force-industry investigating board on that accident, which theories were known to be tenuous, and contradicted by the known facts and circumstances of that accident; advancing 'overload' as a cause of the Monticello, Utah accident when the known weather data would not support such a theory and when
The court concluded that the issue of design defect was barred by the six-year statute of limitations,\(^8\) since the statute began to run not at the date of the crash but at the date of the delivery of the aircraft to the Air Force.\(^8\)

Nevertheless, the court took it upon itself to rule upon the issues of breach of warranty and strict liability\(^8\) by articulating the development of the aircraft according to government specifications.\(^8\) Under this approach, the court again decided in favor of Boeing by applying an implicit form of the government contractor defense, stating:

\[ \text{it was known that the aircraft had not yawed to the left as it would have done in an overload situation; affirmatively excluding, from discussions of the 1655 bulkhead, reference to the Monticello, Utah failure...;} \]
\[ \text{ignoring the warnings of Berman, Bennett, and others that there was an area of severe stress concentration in the bulkhead, that the Monticello fracture was not unique, and that other aircraft would fail in the same way, despite knowledge that there was no evidence of overload failure in the form of ductility or permanent deformation on the Monticello fracture face; [and] failure to adequately review and reconsider the manufacturing processes of the bulkhead, including the burning of the weld relief hole, following the Monticello accident and failing to discover those processes which were creating severe stress concentrations.} \]

\(^8\) Id. at 1117-18 (quoting plaintiff's brief).

\(^8\) Id. at 1114. The court stated, "The instant action being one for personal injuries arising from a breach of warranty, it is our opinion that Blessington controls and, therefore, the applicable Statute of Limitations is six years from the time the sale was consummated..." Id.

\(^8\) Id. at 1115. The court explained why the statute of limitations began to run at the date of delivery as compared to the date of sale, stating, "[c]learly, B-406 was not an ordinary item of commerce sold pursuant to an ordinary sales contract. The court therefore concludes that the date of delivery and not the 'date of sale' was when the plaintiffs' time began to run." Id. at 1115 n.3.

\(^8\) See id. at 1118. The court explicitly decided to determine the issue because of the hard, diligent work of both parties, stating:

\[ \text{At the outset, the court takes note of the fact that, even if the plaintiffs' causes of action based on breach of warranty and/or strict liability are time-barred, as indeed the court has concluded, failure to consider these alternate theories on the merits would be to presume that the court's conflict-of-laws analysis is infallible and to do a disservice to both sides who so thoroughly prepared the case.} \]

\(^8\) Id. at 1124. According to the evidence, military planners conceived the design in the late 1940's. The first prototype of this aircraft flew in 1952. Id. at 1122. The court allowed introduction of further evidence which established that as of the date of trial, the B-52's had the best safety record among major aircraft in the Air Force inventory. Id.
There is no question, and the court so finds, that ultimate responsibility for the design and use of the B-52 bomber rests and always has rested with the United States government. The court concludes, however, that this fact, in itself, neither exonerates the defendant, nor has it in any way altered the defendant's duty as a manufacturer in this case where there has been no showing that the defendant was totally oblivious of and/or aloof from the genesis of the design specifications in the first place or that the specifications represented either something less than the uppermost level of the art or a compromise of safety. 87

Although New York was in the forefront in establishing the defense, at least one other jurisdiction, in two separate cases, accepted government participation in the contract or control of the aircraft as an element to be considered. In Ulmer v. Hartford Accident & Indemnity Co., 88 the plaintiffs sued for the wrongful deaths of three naval reserve officers, alleging that a defect existed in the blade spar of the decedents' helicopter. 89 The Fifth Circuit affirmed the lower court's judgment for the manufacturer, stating that since the Navy had control of the helicopter from 1952 to 1958, the Navy, and not the manufacturer, was negligent. 90

87 Id. at 1124.  
88 380 F.2d 549 (5th Cir. 1967).  
89 Id. at 550-51.  
90 Id. at 551. The court stated:

The insurers note that at least twice during the period from 1952 to 1958, the Navy subjected the blades to "zero time overhauls." This process involved loosening a cork sealer cap in the blade spar to clean the inside of the spar tube and application of a chemical to prevent rusting or scaling. It is the contention of the insurers that after these overhauls, the Navy negligently failed to replace the sealer cap in a secure manner so as to prevent the entry of moisture. From this negligent conduct it is argued that corrosion eventually resulted leading finally to complete separation . . . . We conclude that the jury was not only justified in reaching the conclusion that it was the Navy that was negligent, but that such a conclusion is compelled by the evidence.

Id. at 551-52. The court stated further that the plaintiffs attempted to win the case not on the evidence but on sympathy, and, thus, the jury verdict was warranted if not inescapable. Id. at 552.
Likewise, in *Lindsay v. McDonnell Douglas Aircraft Corp.*, the district court and court of appeals fluctuated on several different issues before ultimately arriving at a judgment for the manufacturer. In *Lindsay*, the plaintiff filed suit for the wrongful death of John Douglas Lindsay, alleging that his F-4B jet aircraft caught fire as a result of a manufacturing defect in the bleed air duct system. The district court held for the defendant, arguing that the plaintiff failed to show, from a preponderance of the evidence, that the aircraft was defectively designed or manufactured. The court of appeals, however, reversed, stating that the plaintiff should have a right to have the case heard on the theory of strict liability without proving the exact defect. The case was then remanded to the district court. The district court, based on the facts, determined that the plaintiff failed to establish the cause of the crash. This time the court of appeals refused to overturn the lower court’s ruling.

The New York and Eighth Circuit cases indicated that the government contractor defense was developing rapidly. Nevertheless, many jurisdictions initially rejected this defense. In *Moyer v. United States*, the district court attempted to establish a form of the government contractor defense, only to have it staunchly rejected by the Fifth Circuit four years later. The plaintiff in Moyer brought suit against the manufacturer and the United States for an alleged defect in the ejection seat of an Air Force B-57A
aircraft. The plaintiffs alleged that as a result of a malfunction, the decedent was propelled one hundred feet into the air and killed instantly. At the district court level, the manufacturers filed a motion for a directed verdict, which was granted. Shortly thereafter, the government also filed a motion to dismiss, claiming immunity under the discretionary function exception to the FTCA. The district court granted the motion, stating:

As regards the selection of the B-57A type aircraft, and in particular the ejection seat and ejection mechanism to be employed in that aircraft, I find that these decisions reflect choices made on a planning level, which in the most immediate sense, affect the political interests of the nation.

The celebration of the verdict was short-lived, since the court of appeals reversed both the directed verdict against the manufacturers and the dismissal under the discretionary function exemption of the claim against the United States. With respect to the discretionary func-

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99 Id. at 1236.
100 Moyer v. Martin Marietta Corp., 481 F.2d 585, 586, 588 (5th Cir. 1973).
101 Moyer, 302 F. Supp. at 1236. The district court failed to explain why a directed verdict was granted. In reversing the lower court, the court of appeals, applying Florida law, held:

[W]e conclude that the trial court committed error in directing verdicts for the corporate defendants at the close of the plaintiff's evidence. There was sufficient evidence for the jury to determine whether the aircraft and ejection seat system had been negligently designed and manufactured, and there was sufficient evidence also for the jury to determine whether the fatal accident of April 22, 1964 was a type of accident reasonably foreseeable at the time the aircraft and ejection seat were designed and manufactured. In remanding this case for another trial we do not intimate any opinion as to the plaintiff's chances of ultimate success. We hold only that the trial court should not have directed verdicts for the corporate defendants. The issues of negligence and contributory negligence, foreseeability and proximate cause were jury issues.

Moyer v. Martin, 481 F.2d at 594.
102 Moyer, 302 F. Supp. at 1237. For more information concerning the discretionary function exemption, see supra note 42.
103 Moyer, 302 F. Supp. at 1237.
104 Moyer v. Martin, 481 F.2d at 594; see supra note 101.
105 Moyer v. Martin, 481 F.2d at 598.
tion exemption, the court held:

We agree with the United States that the selection of the B-57 aircraft by the Secretary of the Air Force constituted the exercise of a discretionary function. Equally the determination of the number of such aircraft to be purchased by the Department of the Air Force also constituted the exercise of a discretionary function. But, coming down to the acceptance of a system of the aircraft, such as the pilot’s ejection seat and its mechanism, which, if negligently designed or constructed posed a safety hazard to an individual operating the aircraft, we hold that the discretionary function exception’s sweep falls short of immunizing the United States from liability.  

Quadrini v. Sikorsky Aircraft Div., United Aircraft Corp. was also brought on strict liability and breach of warranty claims. The defendants also filed a motion for partial judgment on the pleadings or partial summary judgment. The motion, however, was not based on the government contractor defense but rather on a related contractual defense; the defendants argued that warranty claims sounded in contract in North Carolina and required a privity relationship between the contracting parties. Consequently, the defendants argued that the employees lacked the privity to sue. The defendants

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106 Id.
108 Id. at 84.
109 Id. at 91.
110 Id. at 84; 89. The defendants’ argument was based on Mann v. Henderson, 261 N.C. 388, 134 S.E.2d 626 (1964), in which the North Carolina Supreme Court stated, “[a]ny recovery for wrongful death must be based . . . [on] general rules of tort liability.” Id. at 388, 134 S.E.2d at 629. Since the accident occurred in North Carolina the defendants sought to apply the law where the accident occurred. Quadrini, 425 F. Supp. at 89.
111 Id. Specifically, the defendants argued “that plaintiffs’ contract claims are barred because a contractual theory of recovery is not available under the North Carolina wrongful death statute, which governs this case by virtue of [16 U.S.C.] § 457,” which is applied to claims that arise under a federal statute governing wrongful deaths within a federal enclave. Id. Section 457 provides:

In the case of the death of any person by the neglect or wrongful act of another within a national park or other place subject to the exclusive jurisdiction of the United States, within the exterior boundaries
further asserted that North Carolina did not recognize strict liability actions. In *Quadrini*, two Marine Corps officers were killed when their helicopter crashed within a federal enclave in North Carolina. The helicopter was manufactured by the defendant and sold to the United States government in Connecticut. The court determined that since strict liability is a tort claim, the governing law was that of North Carolina. Consequently, since North Carolina did not recognize strict tort liability, the motion to dismiss was granted. However, the court rejected the motion to dismiss on the breach of contract claim, since the contractual claims were governed by Connecticut law, the state where the contract was made.

of any state, such right of action shall exist as though the place were under the jurisdiction of the State within whose exterior boundaries such place may be; and in any action brought to recover on account of injuries sustained in any such place the rights of the parties shall be governed by the laws of the State within the exterior boundaries of which it may be.


*Quadrini*, 425 F. Supp. at 84.

Id.

Id.

Id. at 88. The court noted, "absent federal legislation specifically prescribing rules of decision for a federal enclave, the law existing at the time of the surrender of state sovereignty governs the substantive rights of persons within the federal territory. The state common law rules in effect at the time of cession also become the law of the enclave until displaced by act of Congress." Id. (citation omitted).

Id. at 89. In granting the motion, the court stated that a cause of action in strict liability was not recognized in North Carolina on April 3, 1941, the date the enclave was formed, nor did the state recognize it on the date of the court's decision. Id. Therefore, the court held, "absent some North Carolina rule of law affirmatively demonstrating the availability of such a claim in 1941, the plaintiffs fail to state a cause of action. Therefore the motion to dismiss the cause of action in strict liability is granted." Id.

Id. at 90. The court held: the breach of the relationship entered into by the defendant and the United States . . . was consummated in Connecticut, whereby the United States agreed to pay the defendant money in exchange for a helicopter that was warranted to perform in a certain manner . . . . A recovery on an implied or expressed warranty claim without privity is available under Connecticut law.

Id. The court further stated, "[i]n the absence of a contractual provision setting forth the parties' choice of law, the contract law of Connecticut, the defendant's principle place of business and the place of the making of the contract as well as
The court stated the strong public policy that Connecticut had of enforcing breach of warranty claims on contracts made in their state:

Connecticut has an interest in having [its] law applied to this case, because the State has set forth a social and economic policy embodied in its law of warranty that should govern contractual relationships commenced in Connecticut. Connecticut has an interest in requiring parties who make representations to other parties within its borders to adhere to those representations or face legal consequences for the failure to do so. At a minimum, this policy encourages buyers to enter this state and make contracts here, secure in the knowledge that the contractual protections afforded by Connecticut law will be available to them.118

Four years later, the district court, on reconsideration of the defendant’s motion to dismiss the breach of contract claim, denied the motion a second time, stating, “[u]ntil the Connecticut Supreme Court has had an opportunity to consider . . . whether common law privity is an essential prerequisite to a contractual warranty claim absent an alternative tort action, this court will not deprive these plaintiffs of a cause of action for breach of warranty.”119

In McCullough v. Beech Aircraft Corp.,120 the family of an Army reserve officer brought suit against a manufacturer

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The delivery of the helicopter should govern the warranty claims.” Id. at 89. The court supported this argument by relying on the Restatement (Second) of Conflict of Laws § 188 (1971). Id. at 89-90. That section provides:

(2) In the absence of an effective choice of law by the parties . . . the contacts to be taken into account in applying the principles of § 6 to determine the law applicable to an issue include:

(a) the place of contracting,
(b) the place of negotiation of the contract,
(c) the place of performance,
(d) the location of the subject matter of the contract, and
(e) the domicile, residence, nationality, place of incorporation and the place of business of the parties.

Restatement (Second) of Conflict of Laws § 188(2).

118 Quadrini, 425 F. Supp. at 90.
120 587 F.2d 754 (5th Cir. 1979).
of a single-engine plane used by the National Guard. The aircraft, a Musketeer Model A23A owned by Chattanooga Aviation Inc. and rented to the government, crashed near Camp Shelby, Mississippi, killing Stanley H. McCullough, an experienced military pilot.\(^{121}\) Through circumstantial evidence, the plaintiff sought to establish that the proximate cause of the accident was an improperly designed fuel system that lacked adequate instructions on its use during an emergency.\(^{122}\) The plaintiff further alleged negligent design, manufacture, failure to warn, breach of warranty, and strict liability in tort.\(^{123}\) The district court granted a directed verdict in favor of the manufacturer of the component parts and entered judgment on a verdict in favor of the manufacturers of the airplane, from which the plaintiffs appealed.\(^{124}\) Although the court of appeals reversed concerning the manufacturers of the airplane,\(^{125}\) they affirmed the directed verdict for the component parts manufacturer, stating:

The bulletin recommended a five-step fuel injection system adjustment procedure to eliminate these difficulties. Continental sent the bulletin to all Continental parts dis-

\(^{121}\) Id. at 756-57.
\(^{122}\) Id. at 757.
\(^{123}\) Id.
\(^{124}\) Id. at 756-57. Here the court of appeals failed to explain exactly why the directed verdict was granted. However, the court noted that the appellants' allegation that Continental was liable because it shared the responsibility and prescribed adjustments for some components controlling the smooth operation of the engine. Id. at 758. The appellants further alleged that they proved primarily that conflicting versions of the Continental engine manual were published and that a service bulletin was issued approximately one year before the crash. Id.
\(^{125}\) Id. at 762. The court of appeals determined that, because the judge's instructions to the jury included a statement that he did not think there was anything wrong with the design of the plane, the district court had committed reversible error in its instruction. Id. at 760-61. The appellate court asserted that this comment removed the question of strict liability for a defectively designed aircraft from the jury. Id. The court further stated that the testimony of two experts on the probable actions of the persons in the aircraft as well as the circumstantial evidence that included complicated time and distance calculations was enough to create a question of fact. Id. at 761. Because the district judge only submitted the issue of failure to warn to the jury, the case had to be reversed (even though the jury came back with a verdict for the defendants) because the jury was so misled. Id. at 762.
tributors, dealers, engine owners, and repair agencies. Unlike the FAA airworthiness directives, also cited by appellants, that enumerated particular widespread defects and required them to be remedied within a specified period of time, the Continental service bulletin was distributed merely to assist persons inspecting and repairing engines. Appellants failed to demonstrate that the Musketeer flown by McCullough was subject to erratic idle and poor throttle acceleration response or that these conditions contributed to the accident . . . . In this case, appellants have failed to show that the engine components supplied by Continental were defective in design or in manufacture when they left its control or that a defect in the component was a proximate cause of Colonel McCullough's injuries.126

The principle outlined in McCullough was important, as it noted that no defect in the manual existed because it was not a required manual.127 Rather, the manual was an aid to assist in informing the pilot of potential dangers that existed with the fuel system.128 The opinion further emphasized that the plaintiffs failed to prove that the defect occurred while the parts were in the control of the defendant.129

Like McCullough, Vasina v. Grumman Corp.130 was a case where control of the aircraft and, specifically, control of the alleged defect were critical to the court's decision.131 In Vasina, Lieutenant William Arthur Vasina was killed in the crash of an aircraft designed and manufactured by Grumman.132 A Navy investigation concluded that the crash was caused by an inflight separation of the left wing of the aircraft, which had been damaged in Vietnam several years prior to the crash and had been repaired by

126 Id. at 758-59.
127 Id. at 758.
128 Id.
129 Id. at 759.
130 644 F.2d 112 (2d Cir.), aff'g 492 F. Supp. 943 (E.D.N.Y. 1981).
131 Id. at 114.
132 Id.
Navy personnel at that time. Grumman argued that the repair and maintenance of the aircraft by the Navy amounted to unforeseeable, intervening, and superceding negligence which absolved Grumman of any negligence. Ironically, the New York District Court, unlike its predecessors in the same jurisdiction, failed to accept this argument. The Second Circuit Court of Appeals agreed, stating that "the Navy's negligence would have to be substantial, and decisive in the causal chain of events leading to the crash, in order to eliminate Grumman's liability." The court then determined that this was a jury question because it related to proximate cause.

III. CONCLUSION CONCERNING THE HISTORICAL DEVELOPMENT OF THE GOVERNMENT CONTRACTOR DEFENSE AS IT RELATES TO MILITARY AIRCRAFT

The historical development of the government contractor defense was both rapid and, admittedly, unclear. Very seldom was the government contractor defense men-

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133 Id.
134 Id.
135 See supra notes 5, 64-87 and accompanying text for a discussion of earlier cases in which courts accepted arguments similar to Grumman's.
137 Vasina, 644 F.2d at 114.
138 Id. Appellant Grumman argued that the strict tort liability law applicable to this case was the wrongful death statute, 16 U.S.C. § 457. Id.: see supra note 111. Grumman further relied upon the law outlined in Quadrini, to determine that since the crash occurred on a federal enclave (Boardman Bombing Range, Oregon), the law in 1846, the year the federal enclave was ceded to the United States, governed. Vasina, 644 F.2d at 117. This court, however, rejected the argument outlined in Quadrini, stating:

The plain language of the provision as drafted, and its later judicial construction, leads us to conclude that § 457 envisions the application of the current substantive law of the surrounding state in actions for death or personal injury occurring within a federal enclave. Because our holding agrees with that of the district judge below, we find no error in his decision to submit to the jury the strict liability claim made by plaintiff.

Id. at 118.
tioned by name, and, until 1982, no specific standard was applied in any case involving military aircraft. Yet the crystallization of the defense became more and more imminent from 1964 until 1982. The courts in 1964, for example, only gave consideration to this question on a case-by-case basis, and stated that a jury could decide those issues. A few years later, however, under the

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141 In 1964, the issue of control of the aircraft was a question of fact. Montgomery v. Goodyear Tire & Rubber Co., 231 F. Supp. 447 (S.D.N.Y. 1964), aff'd, 392 F.2d 777 (2d Cir. 1968). Later decisions either expressly or impliedly developed the defense as a matter of law. See O'Keefe v. Boeing Co., 355 F. Supp. 1104 (E.D.N.Y. 1971) (plaintiff alleged defective design and negligent manufacture of welded bulkhead in B-52 bomber). In later cases, the courts began to establish policy considerations behind the rationale for the defense. See In re Agent Orange Litig., 534 F. Supp. at 1046; In re Agent Orange, 506 F. Supp. at 762; Sanner, 144 N.J. Super at 1, 364 A.2d at 43.

same circumstances, the courts ruled in favor of the defendants as a matter of law, arguing that the plaintiffs either failed to prove that the manufacturers were negligent in their designing of the aircraft, or that the aircraft was completed in strict conformity to the required standards outlined by the government. The courts also granted verdicts as a matter of law when the plaintiffs failed to prove that the alleged defect proximately caused the crash. In most instances, however, the key element was knowledge or whether the manufacturer or designer knew or should have known that the military aircraft was indeed defective at the time the aircraft was designed. The jurisdictions, however, disagreed as to whether the United States could also be held liable if it was the designer of the aircraft, primarily because of the courts' diverse interpretations of the discretionary function exception of the FTCA. As noted earlier, one

144 See Kropp, 329 F. Supp. at 463; Sanner, 144 N.J. Super at 3, 364 A.2d at 45.
146 See, e.g., Boeing Airplane Co. v. Brown, 291 F.2d 310 (9th Cir. 1961) (should have known standard); O'Keefe, 335 F. Supp. at 1124 (manufacturers still have a duty if they are not oblivious or aloof from the genesis of the design). Many states, such as North Carolina, did not recognize the theory of strict tort liability, and it was therefore essential to show some sort of knowledge to prevail. See Quadrini v. Sikorsky Aircraft Div. United Aircraft Corp., 425 F. Supp. 81, 89 (D. Conn. 1977), aff'd on reconsideration, 505 F. Supp. 1049 (1981).
147 See O'Keefe, 335 F. Supp. at 1122.
149 28 U.S.C. § 2680(a) (1982). This section provides that the FTCA shall not apply to:

any claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.
court held that the acceptance by the United States of defective equipment, which was negligently designed or constructed and posed a safety hazard to an individual operating the aircraft, would fall short of immunizing the United States from liability.\textsuperscript{150} Most other courts relied upon the doctrine outlined in \textit{Feres v. United States}\textsuperscript{151} and \textit{Stencel Aero Engineering Corp. v. United States},\textsuperscript{152} or what is commonly known as the \textit{Feres-Stencel Doctrine},\textsuperscript{153} to determine that the government was immune from suits in a military aircraft disaster.

One fact was still consistent as it applied to military aircraft. The right to sue the manufacturer existed if the manufacturer was not required to follow strict guidelines set forth by the government.\textsuperscript{154} This principle, however, began to change with the cases of \textit{Koutsoubos v. Boeing Vertol, Division of Boeing Co.},\textsuperscript{155} and \textit{McKay v. Rockwell International Corp.}\textsuperscript{156}

A. McKay v. Rockwell International Corp.

In \textit{McKay}, two Navy pilots were killed in unrelated

\textsuperscript{130} \textit{Moyer v. Martin}, 481 F.2d at 598.

\textsuperscript{131} 340 U.S. 135 (1950).

\textsuperscript{132} 431 U.S. 666 (1977).

\textsuperscript{133} \textit{In re Agent Orange Prod. Liab. Litig.}, 534 F. Supp. 1046, 1055 (E.D.N.Y. 1982), \textit{aff'd}, 818 F.2d 145 (2d Cir. 1983), \textit{cert. denied}, 465 U.S. 1067 (1984). The \textit{Feres-Stencel} doctrine bars actions against the government seeking direct or indirect recovery for injuries arising in or out of the course of activity incident to military service. \textit{Id.} In \textit{Feres}, the Supreme Court held that the United States was immune from suit under the FTCA by a member of the armed services who was injured or killed arising in or out of the course of activity incidental to military service. 340 U.S. at 146. \textit{Stencel} expanded this doctrine to exclude indemnity suits from government contractors who might be required to pay damages to members of the armed services injured incident to military service. 431 U.S. at 673. For an in-depth discussion of the \textit{Feres-Stencel} doctrine, see Note, \textit{From Feres to Stencel: Should Military Personnel Have Access to FTCA Recovery?}, 77 MICH. L. REV. 1099 (1977).


\textsuperscript{135} 553 F. Supp. 340 (E.D. Pa. 1982).

crashes of RA-5C aircraft off the coast of Florida. Their widows sued the manufacturers, alleging that both pilots' ejection seats were designed defectively. Autopsies supported the widow's argument that the ejection seats probably caused the injuries sustained by the decedents. Consequently, the district court found for the plaintiffs, stating that the manufacturer, Rockwell International Corp., had violated sections 388, 389, and 402A of the Restatement (Second) of Torts.

On appeal, the Ninth Circuit reversed on all three sec-

157 Id. at 446.
158 Id.
159 Id.
160 Id. at 453. Section 388 of the Restatement (Second) of Torts deals with chattels known to be dangerous for intended use:

One who supplies directly or through a third person a chattel for another to use is subject to liability to those to whom the supplier should expect to use the chattel with the consent of the other or to be endangered by its probable use, for physical harm caused by the use of the chattel in the manner for which and by a person for whose use it is supplied, if the supplier
(a) knows or has reason to know that the chattel is or is likely to be dangerous for the use for which it is supplied, and
(b) has no reason to believe that those for whose use the chattel is supplied will realize its dangerous condition, and
(c) fails to exercise reasonable care to inform them of its dangerous condition or of the facts which make it likely to be dangerous.

Id. at 454 n.13 (quoting RESTATEMENT (SECOND) OF TORTS § 388 (1965)).
161 Id. at 453. Section 389 of the Restatement (Second) of Torts relates to chattels unlikely to be made safe for use:

One who supplies directly or through a third person a chattel for another's use, knowing or having reason to know that the chattel is unlikely to be made reasonably safe before being put to a use which the supplier should expect it to be put, is subject to liability for physical harm caused by such use to those whom the supplier should expect to use the chattel or to be endangered by its probable use, and who are ignorant of the dangerous character of the chattel or whose knowledge thereof does not make them contributorily negligent, although the supplier has informed the other for whose use the chattel is supplied of its dangerous character.

Id. at 455 n.16 (quoting RESTATEMENT (SECOND) OF TORTS § 389 (1965)).
162 Id. at 447. Section 402A states:
(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to
tions, and determined that the Navy was aware of any injuries that occurred while using the system and that the Navy and Rockwell communicated continuously about the system. As a result of this communication, the court concluded that section 388 did not apply since the manufacturer had no duty to warn the Navy about the system’s dangerous condition. As noted in the opinion,

[t]o impose on Rockwell a duty to test for latent defects would cause it to become a virtual guarantor of the proper performance by the Navy of its duties. And neither the text nor comments to section 388 indicate that there is a duty under that section on the part of the supplier to withdraw a product from the hands of the user, particularly when that user is the Navy of the United States.

Section 389 was also rejected, since the Navy continued to use the system even after the accidents at issue, and the Navy post-accident reports determined that the system was reasonably safe. The Ninth Circuit concluded by stating that the court system should not interfere with the Navy’s evaluation of its weapons systems.

Although these holdings were significant, they were recognized as dicta, since the Ninth Circuit, at the time, did

liability for physical harm thereby caused to the ultimate consumer, or to his property, if

(a) the seller is engaged in the business of selling such a product, and

(b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

(2) The rule stated in Subsection (1) applies although

(a) the seller has exercised all possible care in the preparation and sale of his product, and

(b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

Id. at 447 n.3 (quoting RESTATEMENT (SECOND) OF TORTS § 402A (1965)).
not recognize sections 388 and 389 of the Restatement (Second) of Torts. However, the Ninth Circuit did recognize section 402A, and in its discussion of that section the court outlined the elements necessary to establish immunity under the government contractor defense. Historically, the court noted that the United States was immune from suit by either soldiers or manufacturers under the Feres-Stencel doctrine. The rationale was that if one allowed indemnity suits by manufacturers in the same instances that the United States was immune from the direct liability suits of injured servicemen, the courts would be permitting plaintiffs to enter through back door when they had been legislatively turned away at the front door.

The Ninth Circuit further argued that allowing suits by manufacturers in all instances would involve second-guessing military orders and would put the judiciary in the position of making military decisions. Thus, the court concluded by holding that where

1. the United States is immune from liability under Feres-Stencel;
2. the supplier proves that the United States established or approved reasonably precise specifications for the allegedly defective equipment;
3. the equipment conformed to those specifications; and
4. the supplier warned the United States about the patent errors in the government specifications or about dangers involved in the use of the equipment that were known to the supplier but not to the United States,

then the manufacturer would also be immune from suit.

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169 See supra note 163.
170 Id. at 447-51.
171 Id. at 448; see supra, note 153, for a discussion of the Feres-Stencel doctrine.
172 Id. at 449. "To permit [petitioner] to proceed... here would be to judically admit at the back door that which has been legislatively turned away at the front door. We do not believe that the [Federal Torts Claims] Act permits such a result." Stencel Aero Engineering Corp. v. United States, 431 U.S. 666, 673 (1977) (quoting Laird v. Nelms, 406 U.S. 797, 802 (1972)).
173 McKay, 704 F.2d at 449.
174 Id. at 451.
under the government contractor defense.\textsuperscript{175}

This was the first time that a circuit court standard for the government contractor defense was outlined in the context of a military aircraft disaster.\textsuperscript{176} However, four months prior to \textit{McKay}, the court, in \textit{Koutsoubos}, applied a different standard to the government contractor defense.

\section*{B. Koutsoubos v. Boeing Vertol}

In \textit{Koutsoubos}, three Navy pilots were killed when their helicopter crashed during a simulated rescue mission.\textsuperscript{177} The plaintiffs subsequently filed suit alleging that the helicopter, manufactured by Boeing, was unsafe due to design defects\textsuperscript{178} and was "'unsafe, unairworthy and dangerously unfit for its intended use.' "\textsuperscript{179}

Boeing, however, argued that it manufactured and supplied the helicopter pursuant to a contract between the Navy and Boeing and, therefore, summary judgment was proper pursuant to the government contractor defense.\textsuperscript{180} The district court, adopting the test set forth in \textit{In re Agent Orange}, noted that in order to shield a manufacturer from liability in a case such as this one, the manufacturer would have to meet three critical tests. First, they would have to prove that the government established the design and specific characteristics of the product.\textsuperscript{181} Second, there would have to be a comparison between the government specifications and the characteristics of the product.\textsuperscript{182} The court acknowledged that "'[f]ailure of a defendant to conform to the specifications would defeat the defense only if the discrepancy between specifications and product

\textsuperscript{175} Id.
\textsuperscript{177} 553 F. Supp. at 341.
\textsuperscript{178} \textit{Koutsoubos}, 755 F.2d at 353.
\textsuperscript{179} \textit{Koutsoubos v. Boeing}, 553 F. Supp. at 341 (quoting from the complaint).
\textsuperscript{180} Id.
\textsuperscript{181} Id. at 342.
\textsuperscript{182} Id.
was a material one . . . ."  

Finally, the defendant has to have knowledge of such deficiencies, and the government has to have equal or greater knowledge. If all three tests are met, then "the defendant can still be shielded from liability as long as the product was produced ‘pursuant to and in compliance with the contract specifications.’" The court concluded that the first two elements had been met and the remaining issue was whether or not the government had as much or greater knowledge of the defect.

After judgment was entered on behalf of Boeing Vertol, the plaintiffs appealed, alleging that the Navy did not establish the helicopter specification. The plaintiffs claimed that the specifications were established by both the Navy and Boeing Vertol, through back-and-forth conversations. However, the Third Circuit affirmed the judgment for the manufacturer and rejected the appellants’ argument, stating that there was sufficient government participation to bring the case within the In re Agent Orange rule.

The Koutsoubos and McKay holdings were substantial victories for the manufacturers of military equipment and se-

183 Id. (quoting In re Agent Orange Litig., 534 F. Supp. at 1057).
184 Id. at 343.
185 Id.
186 Id. at 343-44. The court found sufficient evidence to establish the first element of the defense in an affidavit submitted by Robert Tingley, senior contract administrator for Boeing Vertol, and its supporting exhibits. Id. at 343. All that is required, the court found, "is for the defendant to prove that the product it supplied was a particular product specified by the government." Id. (quoting In re Agent Orange Litig., 534 F. Supp. at 1056).

The second element was also established using Tingley's affidavit which showed that "the general and detail specifications were established by the Navy." Id. In addition, the affidavit contained evidence that "the Navy established safety features, testing requirements, emergency exit marking requirements, and interior lighting requirements." Id. "In short," the affidavit read, "every feature of the CH-46A, including the water landing and floatation capability and emergency egress and lighting was tested and inspected to Navy requirements." Id.
187 Id. at 344.
188 Koutsoubos, 755 F.2d at 354.
189 Id.
190 Id. at 355.
vere blows to plaintiffs who might seek to bring suit in an area that was once readily available. Because of the defense, defendant manufacturers did not feel compelled to settle cases, as they once had. Consequently, Koutsoubos' and McKay's effects were felt immediately. In 1983, for example, the same year McKay was decided, several military aviation manufacturers sought to employ the government contractor defense to escape liability for defectively designed aircraft. However, these manufacturers were only partially successful in obtaining their overall objective. Even in McKay's and Koutsoubos' own jurisdictions, the courts were reluctant to hold for the manufacturers of defective equipment, as a matter of law, under the government contractor defense.

C. Other Military Aviation Cases Decided in 1983

In less than seven months after the McKay decision, courts in three separate jurisdictions established the applicability of the defense. In Johnston v. United States, plaintiffs alleged that they contracted cancer as a result of defective instrument dials used in military aircraft. The manufacturers sought summary judgment under the government contractor defense, arguing that the instruments were produced under wartime contracts with the United States. Consequently, they could not be held liable for a breach of an "ostensible but non-existent duty." To support their argument, the defendants relied upon McKay. Yet the argument was easily distinguished by the

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191 This perception is implied primarily because of the dramatic increase in the number of cases that were reported at the appellate and trial court levels over the next five years. As discussed in this article, virtually all of these cases relied upon the direct application of the government contractor defense, and most relied upon McKay to establish their foundation. See infra text and accompanying notes 156-176.


193 Id. at 353.

194 Id.

195 Id.

196 704 F.2d at 444. The Johnston court distinguished within the defendant's argument two possible defenses: the contract specifications defense, based on or-
district court stating:

When the product in question is a new and technically complex one used only by the military — such as the ejection seat in McKay — the rationale has some force, but when the product is a simple adaptation or copy of one already sold in private commerce-as here-it does not.¹⁹⁷

Like the manufacturers in Johnston, the defendants in Hubbs v. United Technologies¹⁹⁸ also sought to employ the principles outlined in McKay and Koutsoubos.¹⁹⁹ Like Johnston, they too were unsuccessful.²⁰⁰ In Hubbs, three naval reservists were killed when their SH-30 helicopter crashed near Willow Grove Naval Air Station, Pennsylvania.²⁰¹ All parties agreed that the crash was caused by a malfunction in the cyclic pitch axis control system which controlled the pitch or tilt of the helicopter.²⁰² The defendant relied upon the government contractor defense, and stated that it should not be held liable as a matter of law because the helicopter was manufactured and supplied in strict accordance with applicable Navy contractual specifications.²⁰³ Ironically, the same district court that followed the government contractor defense in Koutsoubos was not comfortable enough to conclude, as a matter of law, that the government either set specifications for the system or approved final reasonably detailed specifications.²⁰⁴ The court further noted that although participation by the defendant in the preparation of the specifications would not defeat the government contractor defense, such evidence could be relevant in determining the relative degrees of knowledge as between the government and the defend-

¹⁹⁷ Id. at 357.
¹⁹⁹ Id. at 98.
²⁰⁰ Id. at 100.
²⁰¹ Id. at 97.
²⁰² Id.
²⁰³ Id.
²⁰⁴ Id. at 99.
Nevertheless, the court still denied the defendants' motion as being premature.

Manufacturers also had initial trouble in obtaining a directed verdict in the jurisdiction in which McKay was decided. In McLaughlin v. Sikorsky Aircraft, the plaintiffs appealed a special jury verdict for the manufacturer, alleging that the court improperly admitted evidence that Sikorsky had complied with military specifications when it designed the HH-3A combat and rescue helicopter. Sikorsky, on the other hand, argued that the trial court erred when it did not allow use of the government contractor defense as outlined in McKay. The appellate court determined that the defense outlined in McKay did apply and that the case should be bifurcated to determine immunity first.

Equally important, however, was the determination that the district court erred when it allowed the jury to consider the government specifications as even a factor in determining whether or not the product was defective. This additional holding seemed to be a limitation of McKay, since the California court established that once the

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205 Id. at 100.
206 Id.
208 Id. at 208, 195 Cal. Rptr. at 766.
209 Id. at 210-11, 195 Cal. Rptr. at 768.
210 Id. The plaintiffs attempted to argue that state law, not federal law, applied.
Id. Although this was a state court, the court rejected this argument and applied federal law, holding,

"[t]o whatever extent state law may apply to govern the relations between soldiers or others in the armed forces and persons outside them or nonfederal governmental agencies, the scope, nature, legal incidents and consequences of the relation between persons in service and the Government are fundamentally derived from federal sources and governed by federal authority. So also we think are interferences with that relationship." Torts committed by a military aircraft manufacturer against active duty military personnel is an example of such "interferences" with the relationship between members of the armed forces and the government. Therefore, a substantial federal interest is at stake in this lawsuit.

Id. (citation omitted).
211 Id. at 212, 195 Cal. Rptr. at 768-69.
212 Id. at 209, 195 Cal. Rptr. at 766-67.
plaintiff proves an item is defective, the burden shifts to the manufacturer to show that the benefits of the design outweigh its inherent dangers.\textsuperscript{213}

Thus, although \textit{McKay} and \textit{Koutsoubos} were great moral victories for the manufacturers of military aircraft, the court's initial hesitancy to rule as a matter of law for the manufacturers kept the victories rather limited. This began to change dramatically over the next few years, as each circuit court refined the government contractor defense standards outlined by its predecessors and began to interpret the defense in a manner consistent with how it thought the defense should be applied.

D. \textit{Third Circuit Cases}

The most active circuit court involved with military aircraft disasters and the government contractor defense has been the Third Circuit. As noted earlier, cases such as \textit{Koutsoubos}\textsuperscript{214} and \textit{Hubbs}\textsuperscript{215} helped to stimulate this activity. They were, however, only the beginning. On September 11, 1982, a United States Army CH-47C "Chinook" helicopter crashed in Mannheim, West Germany.\textsuperscript{216} Suit was brought, alleging that "[t]he crash was caused by the blade to blade contact of the helicopter's tandem rotor blades due to a failure of its synchronization system."\textsuperscript{217} In \textit{In re Mannheim},\textsuperscript{218} following a jury verdict in plaintiff's favor, defendant Boeing Company moved for a judgment n.o.v. based on the government contractor defense.\textsuperscript{219} The federal district court denied the defendant's motion and, relying upon \textit{Koutsoubos} and \textit{Hubbs}, held that the gov-

\begin{footnotesize}
\textsuperscript{213} \textit{Id.} at 208, 195 Cal. Rptr. at 766.
\textsuperscript{214} \textit{See supra} notes 177-190 and accompanying text for a discussion of the decision in \textit{Koutsoubos}.
\textsuperscript{215} \textit{See supra} notes 198-205 and accompanying text for a discussion of the background and outcome of \textit{Hubbs}.
\textsuperscript{217} \textit{Id.} at 715.
\textsuperscript{218} \textit{Id.}
\textsuperscript{219} \textit{Id.}
\end{footnotesize}
government contractor defense was unavailable to the defendant.\textsuperscript{220} The court determined that the Army submitted to Boeing only mission requirements and performance specifications, while Boeing prepared the helicopter’s specifications and drawings and had final control over the design of the aircraft.\textsuperscript{221}

The court of appeals, however, reversed the lower courts ruling and entered judgment on behalf of Boeing.\textsuperscript{222} The Third Circuit emphasized the fact that the Army had to approve any of Boeing’s deviations from the specifications \textsuperscript{223} and that “the Army had inspected and modified the prototype aircraft.”\textsuperscript{224} Thus, the Third Circuit held, under Pennsylvania law, “the government contractor defense is available despite the contractor’s participation in the development of the design, since the government has approved the design after substantial review of the specifications.”\textsuperscript{225}

The Third Circuit’s ruling in \textit{In re Mannheim} is critical for two reasons. First, it marked one of the first times in aviation cases that judgment was entered for the manufacturer as a matter of law under the government contractor defense.\textsuperscript{226} Second, the court applied not federal law but Pennsylvania law,\textsuperscript{227} since the aircraft was both manufactu-

\textsuperscript{220} \textit{Id.} at 716-18. The court noted, as elements from \textit{Hubbs} necessary to the government contractor defense, that the government had established the specifications for the helicopter, that the helicopter, as manufactured, met the government’s specifications in all material aspects, and that the government knew as much as or more than the defendant about the hazards to people that accompanied use of the helicopter. \textit{Id.} at 717.

In addition, this case materially differed from \textit{Koutsoubos}, where it was shown that the Navy established both general and detailed specifications, in that here the government did not establish the specifications for the CH-47 helicopter. \textit{Id.; see Turner & Sutin, supra} note 23, at 412-13.

\textsuperscript{221} \textit{In re Mannheim Air Crash}, 586 F. Supp. at 717.

\textsuperscript{222} \textit{In re Mannheim}, 769 F.2d at 125.

\textsuperscript{223} \textit{Id.} at 123.

\textsuperscript{224} \textit{Id.}

\textsuperscript{225} \textit{Id.} at 122-23.

\textsuperscript{226} \textit{See id.} at 125.

\textsuperscript{227} \textit{Id.} at 120 n.7; see also \textit{In re Air Crash Disaster at Mannheim Ger. on Sept. 11, 1982}, 575 F. Supp. 521, 527 (E.D. Pa. 1983) (memorandum and opinion order established that Pennsylvania law, rather than German law, would apply).
tured and assembled in Pennsylvania. Both points were equally important in three other Third Circuit cases involving Boeing Vertol, where judgment as a matter of law was entered in Boeing’s favor under the government contractor defense.

In Powell v. Boeing Vertol Co., the same district court called upon to rule in In re Mannheim faced a similar scenario when a Marine Corps CH-46 helicopter crashed off the coast of Hawaii. The plaintiff sued, alleging that the “lack of an aural warning device on the helicopter’s two radar altimeters, which altimeters provide visual indication of the helicopter’s height above the ocean surface,” was the proximate cause of the accident. The court applied the standards outlined in Koutsoubos and In re Mannheim and determined that, under the terms of the contract, Boeing was not required to install radar altimeters that did not have aural warning devices. No deviation was allowed unless reviewed and approved by the Navy. The court also noted that Boeing met all the requirements and detailed specifications of the contract and that the Navy knew just as much or more about the dangers of the altimeter Boeing had installed. In fact, the Navy conducted its own investigations into eight accidents involving CH-46 aircraft between 1969 and 1982 but did not allow Boeing to participate. In holding for Boeing, the court noted that

\[\text{In re Mannheim, 769 F.2d at 117-18.}\]
\[\text{Id. at 1-2.}\]
\[\text{Id.}\]
\[\text{Id. at 2 (applying Koutsoubos, 755 F.2d at 354-55).}\]
\[\text{Id. (applying In re Mannheim, 769 F.2d at 121).}\]
\[\text{Id. at 11.}\]
\[\text{Id. at 3-4.}\]
\[\text{Id. at 5-6.}\]
\[\text{Id. at 6.}\]
limiting inquiry into relative knowledge to the time of design would subvert the third element's purpose of encouraging contractors to warn the government of unknown hazards so that development and procurement decisions will be fully informed. It would remove any incentive for government contractors to propose modification of defectively designed products based upon product performance.\textsuperscript{240}

The Eastern District of Pennsylvania also ruled in favor of Boeing in \textit{Humphreys v. Boeing Co.}\textsuperscript{241} and \textit{Wilson v. Boeing Co.}\textsuperscript{242} In \textit{Humphreys}, the plaintiff brought suit for injuries he sustained while a passenger in an Army CH-47B Chinook helicopter.\textsuperscript{243} The plaintiff sought damages as the result of Boeing's design of a defective rotor blade which hit a gully several times and ultimately struck the plaintiff while he was in the cabin.\textsuperscript{244} Both parties agreed that Boeing had met the first two parts of the Third Circuit's standard\textsuperscript{245} and that the only issue in dispute was whether or not Boeing had more knowledge of the hazards in the aft gear slope landings than the Army.\textsuperscript{246}

In holding for the defendants, the court recognized that the Army helicopter crews received special training in aft-gear slope landings and were taught by the Army the hazards involved and the standard operating procedures used to minimize the risk.\textsuperscript{247} The court reasoned that "[i]t is utterly inconceivable that Boeing could know more about the hazards involved in aft gear slope landings than the Army, which had developed the maneuver and the highly detailed procedures to accomplish it in a safe manner."\textsuperscript{248}

\textsuperscript{240} Id.
\textsuperscript{241} No. 85-4524, slip op. at 1.
\textsuperscript{243} No. 85-4524, slip op. at 1.
\textsuperscript{244} Id. at 2.
\textsuperscript{245} Id.
\textsuperscript{246} Id.
\textsuperscript{247} Id. at 3.
\textsuperscript{248} Id.
In Wilson,\textsuperscript{249} the court relied upon principles echoed in \textit{In re Mannheim, Powell,} and \textit{Humphreys} to arrive at its ultimate conclusion.\textsuperscript{250} The decedent, Larry Joe Wilson, was killed aboard a Navy CH-46D helicopter.\textsuperscript{251} His family alleged that his death resulted from a defectively-designed lubrication system.\textsuperscript{252} In holding in favor of Boeing, the court demonstrated the liberalization of the government contractor defense by distinguishing \textit{In re Agent Orange} and emphasizing manufacturer compliance with a specification approved or established by the government.\textsuperscript{253}

This 1987 interpretation displayed the Third Circuit's reluctance to allow military aviator cases to go to a jury. From 1982 to 1987, the standard of immunity expanded to cover a wide range of manufacturers. In \textit{Koutsoubos},\textsuperscript{254} for example, the court emphasized the importance of continuous back-and-forth discussion between the manufacturer and the government.\textsuperscript{255} The court in \textit{Powell},\textsuperscript{256} however, did not find it necessary to show that the government established or approved the specifications with knowledge of their dangerous characteristics.\textsuperscript{257} In \textit{Wilson}, the defendant satisfied the first element of the government contractor defense so long as the government established or approved the specifications.\textsuperscript{258} Continuous back-and-forth negotiations were no longer necessary.\textsuperscript{259}

\textsuperscript{249} 655 F. Supp. at 766.
\textsuperscript{250} Id. at 772.
\textsuperscript{251} Id. at 768.
\textsuperscript{252} Id. Specifically, the plaintiffs alleged that the system lacked a warning device, mechanism, or indicator which would enable the crew to determine that the engine's oil filter was about to, or had become, clogged to the point where the oil flow would bypass the filter and enter the system through a bypass valve. \textit{Id.} If the oil enters the engine in an unfiltered condition and contains potential contaminants, loss of the oil function system could result. \textit{Id.}
\textsuperscript{253} Id. at 773.
\textsuperscript{254} 755 F.2d at 352.
\textsuperscript{255} Id. at 355.
\textsuperscript{256} \textit{Powell}, No. 84-5503, slip op.
\textsuperscript{257} Id. at 10; see also Wilson, 655 F. Supp. at 772-73.
\textsuperscript{258} 655 F. Supp. at 773.
\textsuperscript{259} Id. The court stated:

Plaintiffs interpret the first prong of the \textit{In re Agent Orange Litigation} test as requiring the contractor to show that there were continuous
Thus, the Third Circuit appears to take a very liberal approach to the government contractor defense. An equally liberal approach appears in Fourth Circuit opinions.

E. Fourth Circuit Decisions

On May 27, 1986, the Fourth Circuit Court of Appeals decided three unrelated military aircraft disaster cases and held for the manufacturer pursuant to its interpretation of the government contractor defense established on that date in Tozer v. LTV Corp. In Tozer, the plaintiffs alleged that when the "Buick Hood" panel came off of the decedent's Navy RF-8G airplane, the decedent lost control, causing the plane to crash. The defendants used the government contractor defense to deny liability since the Navy had approved the installation of the panel. The district court found for the defendants, stating that, under the standard of strict liability, the defendants were immune as a matter of law. The court, however, permitted the jury to determine the defendants' liability under a negligence standard. The jury found that the defendants negligently designed the Buick Hood modification and ultimately found in favor of the plaintiffs.

back and forth discussions or negotiations regarding the inclusion or exclusion of the specific design deficiency alleged in this case. This Court rejects plaintiffs' interpretation of the first prong of the government contractor defense. This is not the formulation of the defense adopted by the Third Circuit in Kousoubos. It is sufficient for the contractor to show, as was done here, that the overall detailed specification was established or approved by the government.


Id. at 404. The Buick Hood, as described by the court, is a hinged panel on the aircraft that permits access to the equipment underneath for repair and maintenance. The court noted that the panel should not open during flight. Id.

Id.

Id. at 405.

Id.

Id.
On appeal, the Fourth Circuit reversed and entered judgment for LTV.\textsuperscript{267} In an artfully written opinion, the court emphasized that under the separation of powers doctrine, courts should not involve themselves in sophisticated military matters.\textsuperscript{268} Consequently, since the district court had neither the constitutional power nor the expertise necessary to make decisions for the military, the jury also lacked these powers.\textsuperscript{269} As stated by the Fourth Circuit,

\begin{quote}
[t]he fact that the challenge here does not involve Tozer’s immediate commanding officer or relate to matters of personal discipline is irrelevant. Military contractors ordinarily work so closely with the military . . . that it is nearly impossible to contend that the contractor defectively designed a piece of equipment without actively criticizing a military decision. Civilian scrutiny of such decisions is generally exerted through executive and legislative oversight on behalf of the public at large, not, as here, through the judiciary at the behest of an individual serviceman.\textsuperscript{270}
\end{quote}

The court thus determined that the standards outlined in \textit{McKay}\textsuperscript{271} would apply not only to cases of strict liability but also in negligence and breach of warranty claims,\textsuperscript{272} so long as government involvement consisted of more than a mere rubber stamp of approval.\textsuperscript{273} The opinion in \textit{Tozer}, like \textit{Wilson}, was even more liberal than that of \textit{In re Mannheim}. \textit{In re Mannheim} emphasized that there must be substantial review of the specifications by the military in order for the government contractor defense to be available.\textsuperscript{274} \textit{Tozer}, however, only mandated genuine participation in the design.\textsuperscript{275} Thus, the Third Circuit’s shift in

\begin{itemize}
\item \textsuperscript{267} \textit{Id.} at 409.
\item \textsuperscript{268} \textit{Id.} at 405.
\item \textsuperscript{269} \textit{Id.} at 405-06.
\item \textsuperscript{270} \textit{Id.} at 406.
\item \textsuperscript{271} See supra notes 164-176 and accompanying text for a discussion of the \textit{McKay} standard for the government contractor defense in military aircraft accidents.
\item \textsuperscript{272} \textit{Id.} at 408.
\item \textsuperscript{273} \textit{Id.} at 407-08 (quoting \textit{In re Mannheim}, 769 F.2d at 122).
\item \textsuperscript{274} 769 F.2d at 123-24.
\item \textsuperscript{275} 792 F.2d at 408.
\end{itemize}
standards affected the Fourth Circuit as well.

This Fourth Circuit shift was more evident in two cases decided on the same day as Tozer, namely Dowd v. Textron, Inc.\textsuperscript{276} and Boyle v. United Technologies Corp.\textsuperscript{277} Boyle, discussed later in detail,\textsuperscript{278} involved a Marine Corps helicopter that crashed off the coast of Virginia Beach, Virginia.\textsuperscript{279} Four crew members survived the impact, three of whom escaped through emergency exits.\textsuperscript{280} The co-pilot, David Boyle, did not escape and drowned.\textsuperscript{281} The plaintiffs alleged that Sikorsky defectively repaired the pilot valve of the helicopter’s servo and designed the escape hatch defectively, since it opened outward instead of inward.\textsuperscript{282} In applying the standards outlined in McKay and Tozer, the court concluded that Sikorsky built the helicopter, and the Navy accepted it as complying with specifications.\textsuperscript{283} The court noted:

The Navy thus had thirteen years of experience with this particular helicopter at the time of Boyle’s crash. Plaintiffs point to nothing in the record that indicates there were any hazards of which Sikorsky was aware and the Navy was not. Sikorsky’s duty to warn the Navy of any hazards known to it but not to the Navy was thus not brought into question.\textsuperscript{284}

Like the court in Boyle, the district court in Dowd v. Textron, Inc. also gave the appropriate instructions for strict liability; however, the court gave erroneous instructions

\textsuperscript{276} 792 F.2d 409 (4th Cir. 1986), cert denied, 108 S. Ct. 2897 (1988).
\textsuperscript{277} 792 F.2d 413 (4th Cir. 1986), vacated, 108 S. Ct. 2510 (1988).
\textsuperscript{278} See infra notes 371-386 for a discussion of the applicability of federal law in military aircraft disasters, the recognition of the government contractor defense, and the effect of the Supreme Court’s decision in Boyle.
\textsuperscript{279} 792 F.2d at 414.
\textsuperscript{280} Id.
\textsuperscript{281} Id.
\textsuperscript{282} Id. The court pointed out that, “the helicopter servo acts as a sort of power steering to assist the pilot in flying the plane. After the accident, a small chip of wire was found in the pilot valve. Plaintiffs argued that the chip caused the servo to stop functioning, the pilot lost control of the helicopter, and the helicopter crashed into the water.” Id.
\textsuperscript{283} Id. at 415.
\textsuperscript{284} Id.
on the negligence claims.\textsuperscript{285} In \textit{Dowd}, the pilot and copilot were killed when their helicopter began "mast bumping"\textsuperscript{286} and "the blades cut through the cockpit of the helicopter."\textsuperscript{287} The Army knew about the problems with the rotor system but had failed to make the three changes suggested by the contractor.\textsuperscript{288} The court, therefore, concluded that upholding a verdict against the contractor would impose "liability without responsibility" and reversed the district court's decision.\textsuperscript{289}

The three decisions of May 27, 1986, had a dramatic effect on the district courts of the Fourth Circuit in cases involving strict liability, breach of warranty, and negligence claims.\textsuperscript{290} The circuit court, however, had not addressed the issues of a duty to warn and what happens when suit is brought not by a member of the military but by a civilian who is injured in a military aircraft.\textsuperscript{291} These two issues were handled by the District Court of Maryland in \textit{Ramey v. Martin-Baker Aircraft Co.}\textsuperscript{292}

In \textit{Ramey}, the plaintiff, an aircraft mechanic, was seriously injured while trying to remove an ejection seat from a Navy F-18 aircraft.\textsuperscript{293} He alleged that Martin-Baker had designed a defective "trip rod, firing lever, and sears component of the ejection seat."\textsuperscript{294} The court, in granting summary judgment on the basis of the government contractor defense, determined that plaintiff's status as a ci-

\textsuperscript{285} Id. at 411.
\textsuperscript{286} Id. at 410. According to the court, "[t]he rotor [the system of rotating blades] is attached to a rotating mast. If the rotor dips at an extreme angle and the mast remains stationary, the hub of the rotor may strike the mast and sever it." \textit{Id.} This is known as "mast bumping." \textit{Id.} The court further noted that "[w]hen mast bumping occurs in flight, it is generally catastrophic because the rotor separates from the mast, and the helicopter can no longer fly." \textit{Id.}
\textsuperscript{287} Id. at 412.
\textsuperscript{288} Id. at 412. Bell made three suggestions to the Army that it believed might alleviate the mast bumping problem: installation of "a hub spring, a mast plug, and a four-bladed rotor system." \textit{Id.} at 411-12.
\textsuperscript{289} Id. at 412.
\textsuperscript{290} See \textit{supra} notes 260-289 and accompanying text.
\textsuperscript{291} Id.
\textsuperscript{292} Id.
\textsuperscript{293} Id. at 984 (D. Md. 1987).
\textsuperscript{294} Id. at 985.
vilian did not matter because the defense went to the machinery and not to the individual.\textsuperscript{295} Yet the court denied, without prejudice,\textsuperscript{296} summary judgment on the duty to warn.\textsuperscript{297} Relying on \textit{McKay}\textsuperscript{298} and \textit{In Re Agent Orange},\textsuperscript{299} the court determined that the defendants did not have enough facts to support a summary judgment on the duty to warn\textsuperscript{300} but acknowledged that the denial was probably a mere formality, stating:

Although this claim may not be a repetition of the alleged design defect concerning the seat's potential to inadvertently discharge, it too may be viewed as a type of design defect under the theory that warnings in general are safety components of the product, the existence of which are dictated by the specifications established or approved by the Navy. Under this theory a manufacturer should be given the same protection from liability for defects in verbal safeguards as it is for defects in physical safeguards.\textsuperscript{301}

On this basis, the district court allowed the defendants an opportunity to renew their motion at a later date.\textsuperscript{302}

These recent Third and Fourth Circuit cases illustrate that the government contractor defense outlined in \textit{McKay} and \textit{Koutsoubos} was welcomed and accepted by these circuits with little or no deviation. Yet one circuit did not buy into either of these arguments.\textsuperscript{303} Rather, the Eleventh Circuit relied not so much on the majority's opinion

\textsuperscript{295} Id. at 987, 990; see also \textit{In re Air Crash Diasaster at Mannheim Ger. on Sept. 11, 1982}, 586 F. Supp. 711 (E.D. Pa. 1984), \textit{rev'd}, 769 F.2d 115 (3d Cir. 1985), \textit{cert. denied}, 474 U.S. 1082 (1986) (government contractor defense not applicable to a manufacturer who had final control over the design of the helicopter); \textit{Casabianca v. Casabianca}, 104 Misc. 2d 348, 428 N.Y.S. 2d 400 (Sup. Ct. 1980) (manufacturer's compliance with Army specifications was a complete defense).

\textsuperscript{296} \textit{Ramey}, 656 F. Supp. at 1000. The court did, however, determine that this motion could be renewed once the defendants believed that they had enough facts to support it. \textit{Id.}

\textsuperscript{297} Id. at 995-87, 1000.

\textsuperscript{298} 704 F.2d at 444.

\textsuperscript{299} 554 F. Supp. at 1046.

\textsuperscript{300} \textit{Ramey}, 656 F. Supp. at 999-1000.

\textsuperscript{301} Id. at 999.

\textsuperscript{302} Id. at 1000.

but upon the dissent’s argument in McKay to help determine its own version of the government contractor defense.\textsuperscript{304}

\textbf{F. Eleventh Circuit Decision}

The Eleventh Circuit, unlike any other circuit, developed a very unique interpretation of the government contractor defense in \textit{Shaw v. Grumman Aerospace Corp.}\textsuperscript{305} In \textit{Shaw}, the decedent’s Navy Grumman A-6 aircraft crashed into the Pacific Ocean immediately after launch by catapult from the aircraft carrier U.S.S. Constellation.\textsuperscript{306} The plaintiff’s evidence established that the crash was probably caused by the loss or failure of a bolt in the “stabilizer actuation system” or “longitudinal flight control system.”\textsuperscript{307} The defendants alleged that the government contractor defense shielded them from liability.\textsuperscript{308} The district court disagreed.\textsuperscript{309} In applying a strict interpretation of the \textit{McKay} elements, the district court found that the defendants failed to meet the four essential demands and ruled in favor of the plaintiffs.\textsuperscript{310}

On appeal, the Eleventh Circuit affirmed the lower court’s ruling, yet overturned the trial court’s application of \textit{McKay}.\textsuperscript{311} First, the court rejected the policy rationale for the defense after determining that the reasoning in \textit{McKay} was “weak support for the government contractor defense.”\textsuperscript{312} Second, the court further reasoned that \textit{McKay}’s interpretation of the \textit{Feres-Stencel} doctrine was “strained” and “outdated.”\textsuperscript{313}

\textsuperscript{304} \textit{Id.} at 736.
\textsuperscript{306} \textit{Shaw v. Grumman}, 593 F. Supp. at 1067.
\textsuperscript{308} \textit{Shaw v. Grumman}, 593 F. Supp. at 1073.
\textsuperscript{309} \textit{Id.} at 1074.
\textsuperscript{310} \textit{Shaw}, 778 F.2d at 738.
\textsuperscript{311} \textit{Id.}
\textsuperscript{312} \textit{Id.} at 741.
\textsuperscript{313} \textit{Id.} at 742. The Eleventh Circuit specifically rejected the \textit{McKay} argument that military contractor liability for defective military equipment would increase.
Consequently, the Eleventh Circuit’s approach to the
government contractor defense was unique. The court
rationalized that although the separation of powers doc-
trine compelled the judiciary to defer to military decisions
involving the design of military or weapon systems,14 the
government contractor defense would have only limited
application. Under the Shaw test, a contractor may escape
liability only if it affirmatively proves its compliance with
certain conditions.15 The Shaw interpretation is similar to
that of other circuits, in that it explicitly rejects a “rubber
stamp approval”, and requires authorization to be “know-
ing.” Yet the burden placed on the manufacturer is much
more severe under the Shaw test since the court also re-
quired approval by the military to be “clear — that is, ob-
viously related and responsive” — in order to proceed
with the dangerous design.16

G. Other District Court Decisions

Although the Eleventh Circuit rejected the McKay inter-
pretation of the government contractor defense, the court
in Hendrix v. Bell Helicopter Textron Inc.17 accepted McKay
and granted summary judgment in favor of the manufac-

dition of United States v. Shearer, 492 U.S. 52 (1985), to hold that “the limitation of government liability rationale
behind the Feres Stencel doctrine appears . . . to be 'no longer controlling.'” Id. (quoting Shearer).

14 Id. at 741-42. “To the extent that any competition
obtains in the market for defense products, . . . contractors with defective designs
may be deterred from passing through the cost of liability for defective design by
competition from contractors with better safety records.” Id. at 742 (footnotes
omitted). The Shaw court relied upon the decision of United States v. Shearer,
492 U.S. 52 (1985), to hold that “the limitation of government liability rationale
behind the Feres Stencel doctrine appears . . . to be 'no longer controlling.'” Id.
(quoting Shearer).

15 Id. at 746. The conditions are:

(1) [the contractor] did not participate, or participated only mini-
mally, in the design of those products or parts of products shown to
be defective; or (2) [the contractor] timely warned the military of the
risks of the design and notified it of alternative designs reasonably
known by the contractor, and that the military, although forewarned,
clearly authorized the contractor to proceed with the dangerous
design.

16 Id.

In Hendrix, the plaintiffs alleged that James R. Hendrix, Jr.'s Army helicopter crashed as the result of a failed lever pivot bolt in the scissors and sleeve assembly. Because "any deviation from the approved design specifications had ... [to be] approved by the Army," Bell maintained that it was not liable to the plaintiff's under the government contractor defense. Bell further argued that it had "no duty as a military contractor to warn or notify the government of possible product changes or improvements which might make the product safer after the product had been delivered and accepted by the government." The court agreed with Bell, holding not only that the McKay elements had been met, but also that Bell indeed had no duty to warn the Army of post-delivery product changes, since Bell had no central control over the helicopter after it was accepted by the government.

Unlike any other case previously mentioned, manufacturers in the case of Estate of Portnoy v. Cessna Aircraft Co. used the government contractor defense not to gain a summary judgment motion, but rather to oppose a motion for partial summary judgment against them. In Estate of Portnoy, a military 02-A airplane crashed, killing Major John T. Baggs and Sergeant David L. Portnoy. The plaintiffs alleged that the propeller was designed de-

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318 Id. at 1558.
319 Id. at 1552. An army accident report indicated that the bolt failure caused the main rotor blade to become uncontrollable, subjecting the helicopter to aerodynamic forces which separated the main rotor system from the aircraft, resulting in the helicopter crashing to the ground. Id.
320 Id. at 1553.
321 Id. at 1555.
322 Id.
323 Id. at 1556-57; see supra note 174 and accompanying text for a discussion of the four elements of the government contractors defense in McKay.
324 Hendrix, 634 F. Supp. at 1557.
326 Id. at 1152.
327 Id. at 1149. Major Baggs was the assigned pilot of the flight but an advisor to Cessna who investigated the crash concluded, "Sergeant Portnoy was in control of the airplane at the time that it crashed." Id.
fectively, and contended that a motion for partial summary judgment was appropriate since the defendants were found strictly liable for the same defect in an earlier unpublished decision. The district court noted that offensive collateral estoppel was viewed with " stricter scrutiny" than defensive collateral estoppel, and that the plaintiffs could not "ride on the coat tails" of the Baggs case if they could have joined as plaintiffs in the first action. More importantly, at the time of the Baggs decision, the Texas courts had not recognized the government contractor defense. Therefore, the court held that

this issue, which bars Cessna from liability, has never been actually litigated and determined adversely to Cessna in the prior litigation. Since the general contractor defense has been recently applied in Federal District Court in Mississippi, it would constitute an unfairness and injustice to the defendant if this Court were to permit the use of offensive collateral estoppel and deny Cessna its day in Court.

The direct effect of the development of the government contractor defense was of substantial magnitude. However, the indirect effect was also noticed in jurisdictions that were once staunch advocates of the plaintiffs right to sue. In the case of Resnick v. Sikorsky Aircraft, the District Court of Connecticut confronted virtually the identical fact situation that it faced years earlier in Quadrini v. Sikorsky Aircraft Division. Yet the court ruled differently in

528 Id.
529 Id. (citing Nancy Baggs Germone v. Cessna Aircraft Co., No. 3-78-1193-G (N.D. Tex. June 8, 1981)). Major Baggs' wife agreed to a settlement and final judgment that did not reach the issue of the liability of the defendant, Cessna. Id. at 1150.
530 Id. at 1151 (quoting Hicks v. Quaker Oats Co., 662 F.2d 1158, 1172 (5th Cir. 1981)).
531 Id. at 1152.
532 Id.
533 Id.
535 Quadrini, 425 F. Supp. at 81; see supra notes 107-119 for a discussion of recovery on a wrongful death claim, jurisdiction of a federal question, and conflict of laws regarding contracts and torts.
In Resnick, the defendants moved to dismiss a wrongful
death action which sought damages under negligence,
strict liability, breach of warranty, and breach of con-
tract.337 The district court, like the court in Quadrini, de-
termined that North Carolina law governed the tort issues
and that Connecticut law governed the contractual
claims.338 Unlike Quadrini, however, the breach of con-
tract claim was dismissed since the plaintiffs failed to al-
lege that they had privity or knowledge of the contractual
relationship between Sikorsky and the purchaser of the
helicopter.339 The court reasoned that this dismissal of
the contract claim was appropriate because the plaintiffs
were left with a viable remedy based upon a negligence
claim under North Carolina law.340 The court also dis-
missed the claims of strict liability and tortious breach of
warranty, since these claims were not actionable under
North Carolina law.341

This ruling was of great significance, since the strong
public policy echoed by the Connecticut court just ten
years prior to Resnick342 evaporated completely. The
Connecticut court no longer felt obliged to hold parties,
who made representations in Connecticut, legally respon-
sible.343 Consequently, even Connecticut was no longer a
safe haven for plaintiffs.

Like Resnick, the court in Church v. Martin-Baker Aircraft
Co.344 also ruled in favor of the manufacturer. But the
Church court purposely avoided ruling on the government
contractor defense, and determined instead that the plain-
tiffs failed to establish the proximate cause of the acci-

338 Id. at 417-18.
339 Id. at 418.
340 Id.
341 Id.
342 See supra note 118 and accompanying text for a discussion of the court's
holding in Quadrini regarding the social and economic policy of Connecticut's
contract law.
343 Resnick, 660 F. Supp. at 418.
In Church, the plaintiffs alleged that Air Force Captain Stephan P. Church received fatal injuries when he ejected from a defective ejection seat while flying over the Gulf of Mexico. The defendant, however, asserted that even if the seat was in fact defective, Martin-Baker was immune from suit pursuant to the government contractor defense. In avoiding the government contractor defense, the court noted that the

[d]efendant in summary proceedings, which were taken with the case, and at trial, urged the Court to find that it had no obligation to plaintiff because of the "government contractor defense." This defense in some circuits has been upheld by immunizing contractors from liability incurred during the performance of government contracts. As judgment is to be entered for defendant on the merits, it is unnecessary to consider the government contractor defense issue.

IV. Initial Policy Difficulties of the Defense prior to June 27, 1988

Since 1982, the development of the elements necessary to establish the government contractor defense has been far more dramatic and more explicit than the somewhat confusing rationales developed over the twenty-five year period preceding the district court opinion in Koutsoubos. But, because the defense was still in the neonatal stage of development, there were still several questions that remained unsolved. One of the most critical questions was whether state or federal law should gov-

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\[545\] Id. at 509.
\[546\] Id. at 501.
\[547\] Id.
\[548\] Id. at 509.

\[549\] See supra notes 177-187 and accompanying text for a discussion of the elements of the government contractor defense set forth in Koutsoubos, which included: (1) proof that the government established the design and specific characteristics of the product; (2) a comparison between the government specifications and the characteristics of the product; and (3) defendant's knowledge of the deficiencies coupled with the government's equal or greater knowledge.
ern in a military aircraft disaster.\textsuperscript{350} McLaughlin touched upon this issue,\textsuperscript{351} and there the court stated that federal law, not state law, should apply.\textsuperscript{352} The significance of this court’s decision was minimal since very few courts relied upon its decision.\textsuperscript{353} Most courts did not feel compelled to deal with this issue, primarily because a large number of cases were brought under the Death on the High Seas Act\textsuperscript{354} and, consequently, the courts determined that federal law would govern.\textsuperscript{355} This was a question of substantial importance, however, since many state courts did not recognize the government contractor defense.\textsuperscript{356} Thus, the determination of the federal or state law issue was virtually inevitable, since it would be this issue that would ultimately decide how entrenched the government contractor defense would become in the legal system.

Another policy problem that developed for the defense was whether to apply the law of the jurisdiction where the accident occurred,\textsuperscript{357} the law of where the contract was completed,\textsuperscript{358} or the law of the jurisdiction with the most significant contacts.\textsuperscript{359} Courts applied all of these remedies, and some courts even combined the laws of several jurisdictions to obtain an answer.\textsuperscript{360} These different choice-of-law concepts again made it incredibly difficult for courts to determine a rather uniform government con-

\textsuperscript{350} See Note, Government Contract Defense, supra note 1, at 181.
\textsuperscript{351} McLaughlin, 148 Cal. App. 3d at 211-12, 195 Cal. Rptr. at 768-69.
\textsuperscript{352} Id. at 211, 195 Cal. Rptr. at 768.
\textsuperscript{353} See supra note 227 and accompanying text for the Third Circuit’s holding that Pennsylvania law would apply.
\textsuperscript{354} See Tozer, 792 F.2d at 404; Koutsoubos, 755 F.2d at 353; Shaw, 778 F.2d at 738; Wilson, 655 F. Supp. at 768; Church, 643 F. Supp. at 501.
\textsuperscript{355} See infra notes 371-381 and accompanying text for a discussion of the applicability of federal law to military aircraft disasters.
\textsuperscript{356} See Ramey, 656 F. Supp. at 984; Hubbs, 575 F.Supp. at 96.
\textsuperscript{357} See Wilson, 655 F. Supp. at 766; Powell, No. 84-5503, slip op.; Humphreys, No. 85-4524, slip op.
\textsuperscript{358} See In re Mannheim Air Crash, 586 F. Supp. at 711.
\textsuperscript{359} See Resnick, 660 F. Supp. at 415; Quadrini, 425 F. Supp. at 81.
tractor defense policy.\textsuperscript{361}

Finally, the third and most obvious problem with the defense was the different standards that each court applied. For example, under the government participation element,\textsuperscript{362} some circuits held that all the manufacturer must show was government-approved specifications,\textsuperscript{363} while others held that there had to be continuous back-and-forth conversations between the government and the manufacturer.\textsuperscript{364} The Eleventh Circuit stated that, in order for the manufacturer to escape liability, the government must have compelled him to make the defective product to specifications.\textsuperscript{365} All of these factors posed an equal protection problem, since, under the Death and High Seas Act, some plaintiffs were permitted to recover\textsuperscript{366} while others were dismissed before trial\textsuperscript{367} or after a verdict was rendered.\textsuperscript{368} Most of these cases were under virtually identical fact situations or scenarios, namely, that the government wanted to enhance a part of

\footnotesize{\textsuperscript{361} By differing over the choice-of-law issue, the courts created tremendous difficulty in establishing uniformity since no manufacturer is precisely sure which law will govern claims against it. In this pot-luck scenario, the choice of law will depend a great deal on where the aircraft crashes.}

\footnotesize{\textsuperscript{362} Koutsoubos v. Boeing Vertol, Div. of Boeing Co., 755 F.2d 352, 353 (3d Cir.), \textit{cert. denied}, 474 U.S. 821 (1985). This government participation element was the first prong under \textit{Koutsoubos}, which required that "the government establish the specifications for the helicopter." \textit{Id.} at 354. Under \textit{Tozer}, this element was the second prong and required that the United States approved reasonably precise specifications for the equipment and the equipment conformed to those specifications. 792 F.2d at 404-07; \textit{see also} Shaw v. Grumman Aerospace Corp., 778 F.2d 736, 745-46 (11th Cir. 1985), \textit{cert. denied}, 108 S. Ct. 2896 (1988).}


\footnotesize{\textsuperscript{364} \textit{Koutsoubos}, 755 F.2d at 355; \textit{In re Mannheim Air Crash}, 586 F. Supp. at 717.}

\footnotesize{\textsuperscript{365} \textit{See} Shaw, 778 F.2d at 746.}

\footnotesize{\textsuperscript{366} \textit{Id.} at 737.}


the machinery, and, therefore, the manufacturer designed the enhancement. Even in defective military aircraft cases which didn't involve the government contractor defense, the courts in Quadrini\textsuperscript{369} and Resnick\textsuperscript{370} established two different outcomes in virtually the same fact pattern. Thus, like the earlier defective military aircraft cases, the cases involving the modern-day government contractor defense lacked one major thing — uniformity in their application of the defense.

V. THE SUPREME COURT DECISION OF BOYLE V. UNITED TECHNOLOGIES CORP.

On June 27, 1988, the Supreme Court sought to eliminate this lack of uniformity through its decision in Boyle v. United Technologies Corp.\textsuperscript{371} Unfortunately, like its predecessors, the Court also had an extremely difficult time determining how the standard was to be applied, given that the case was argued in October 1987 and reargued in April 1988.\textsuperscript{372} One journal rationalized that the reargument became necessary when the Court deadlocked in a preliminary vote, and, therefore, that Supreme Court Justice Anthony Kennedy was needed to cast the tiebreaker.\textsuperscript{373}

In Boyle,\textsuperscript{374} the Supreme Court was called upon to determine whether state or federal law applied in military aircraft disasters\textsuperscript{375} and whether or not the government

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\textsuperscript{369} See supra notes 107-119 and accompanying text for a discussion of Quadrini in which the court, relying on North Carolina tort law, dismissed a strict liability claim but let a breach of contract claim remain where two Marines were killed in their helicopter which was manufactured by the defendant and sold to the United States.

\textsuperscript{370} See supra notes 335-342 and accompanying text for a detailed discussion of Resnick in which the court, under circumstances similar to Quadrini, dismissed the contract claim since the plaintiffs failed to allege that they were not privy to the relationship between the Sikorsky and the purchaser of the helicopter.

\textsuperscript{371} 108 S. Ct. 2510 (1988).

\textsuperscript{372} Id.

\textsuperscript{373} Repa, Supreme Court Preview, 74 A.B.A. J. 48 (May 1988).

\textsuperscript{374} See infra notes 277-284 and accompanying text for a discussion of the facts presented in the Boyle case.

\textsuperscript{375} 108 S. Ct. at 2513.
contractor defense was a defense that the Court should recognize. In a 5-to-4 decision, Justice Scalia, in writing the opinion for the majority, determined that although the Court has, in most instances, refused to preempt state law in the absence of either a clear statutory prescription or direct conflict of federal law, there are some interests that are so "uniquely federal" that they are governed exclusively by federal law. In determining that contracts between the government and the manufacturer of military equipment fall under that unique federal interest, the Court held that

\[\text{the imposition of liability on Government contractors will directly affect the terms of Government contracts: either the contractor will decline to manufacture the design specified by the Government, or it will raise its price. Either way, the interests of the United States will be directly affected.}\]

The Court then rationalized that the discretionary function of the FTCA sought to protect manufacturers of military equipment and, therefore, determined that the standard of immunity outlined by the Eleventh Circuit was erroneous:

While this formulation may represent a perfectly reasonable tort rule, it is not a rule designed to protect the federal interest embodied in the "discretionary function" exemption. The design ultimately selected may well reflect a significant policy judgment by Government officials whether or not the contractor rather than those officials developed the design. In addition, it does not seem to us sound policy to penalize, and thus deter, active contractor participation in the design process, placing the contractor at risk unless it identifies all design defects.

Consequently, the Court determined that the manufac-

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\[376 \text{Id.}\]
\[377 \text{Id. at 2513-14.}\]
\[378 \text{Id. at 2515.}\]
\[379 \text{See 28 U.S.C. § 2680(a) (1982); see also supra note 42 for the text of this section of the FTCA.}\]
\[380 \text{Boyle, 108 S. Ct. at 2518.}\]
turer would be immune from liability under the government contractor defense if the standards outlined in McKay\textsuperscript{381} were met.\textsuperscript{382} The Court, however, vacated and remanded the case to the court of appeals to determine whether or not the elements had been met.\textsuperscript{383}

The effect of the Supreme Court decision of Boyle is not precisely clear. Several areas, however, are extremely important and worth noting. First, the Court established that because of the “uniquely federal interests” in cases involving defective military aircraft, federal law, not state law, would apply.\textsuperscript{384} Further, the Court acknowledged that the government contractor defense standard to be used in these cases would be the standard used by the Fourth Circuit in Boyle and the Ninth Circuit in McKay.\textsuperscript{385} This federal concern eliminated the question of whether tort or contract law would govern the claim, since the Supreme Court was in essence stating that the law of Boyle governed all defective military aircraft claims.\textsuperscript{386}

After 30 years of attempting to establish a uniform standard for use in military aircraft disasters, the Court ultimately accomplished this goal in Boyle. Nevertheless, although it seems that all questions were finally answered in Boyle, one critical question remains: Have the courts, in establishing the government contractor defense, over-

\textsuperscript{381} See supra note 174 and accompanying text for the McKay standards.
\textsuperscript{382} Boyle, 108 S. Ct. at 2518.
\textsuperscript{383} Id. at 2519.
\textsuperscript{384} Id. at 2514-15.
\textsuperscript{385} Id. at 2518; see infra note 392 for the scope of the standard.
\textsuperscript{386} Id. The Supreme Court, by determining that federal law, not state law, applied rendered the choice of law issue irrelevant, thus displacing the entire body of applicable state law with federal law. Id. The Court did this so that a uniform standard would govern all defective military aircraft when the defect is the result of the government’s design or approval. Id. at 2516. The Court noted that the cases are cited in the text of its opinion involving the civil liabilities of federal officials for actions during the course of their duty “merely to demonstrate that the liability of independent contractors performing work for the Federal Government, like the liability of federal officials, is an area of uniquely federal interest.” Id. at 2514 n.1. This rationalization of the Court continued, the Court stating “[i]n some cases, for example where the federal interest requires a uniform rule, the entire body of state law applicable to the area conflicts and is replaced by federal rules.” Id. at 2516.
stepped their boundaries so as to unconstitutionally violate the separation of powers doctrine?

VI. ANALYSIS AND CONCLUSION

Looking at the history of the government contractor defense, it is apparent that the defense has been premised upon a public policy rationale rather than reliance upon any statutory regulation established by Congress. The most obvious rationale behind its development is cost-benefit analysis, or what it might cost the government if this defense was not established. The Supreme Court in Boyle, for example, rationalized that, based upon this analysis, the Constitution and the laws of the United States empowered it to create "federal common law." This argument, however, creates a direct contradiction between the Court's holding in Boyle and the decision that Boyle relied upon, namely Tozer. In Tozer, the court held:

The judicial branch is by design the least involved in mili-

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587 See McKay, 704 F.2d at 449 (discussed supra notes 171-173 and accompanying text); see also Tozer, 792 F.2d at 405-06 (discussed supra notes 268-270 and accompanying text); Boyle v. United Technologies, 792 F.2d at 413, vacated and remanded, 108 S. Ct. at 2518 (discussed supra notes 377-381 and accompanying text).

588 See Boyle, 108 S. Ct. at 2519-20 (Brennan, Marshall and, Blackmun, JJ., dissenting; Stevens, J., separate dissent) (all four dissenters emphasized the lack of statutory basis for the majority's decision).

589 Id. at 2518; see supra note 380 and accompanying text.

590 See 108 S. Ct. at 2514, 2518. The dissent emphasized that federal common law may displace state law only in "few and restricted" instances. Id. at 2521 (Brennan, J., dissenting) (citing Wheeldin v. Wheeler, 373 U.S. 647, 651 (1963)).

591 108 S. Ct. at 2518. The Supreme Court in its holding states:

We agree with the scope of displacement adopted by the Fourth Circuit here, which is also that adopted by the Ninth Circuit, see McKay v. Rockwell Int'l Corp. . . . . Liability for design defects in military equipment cannot be imposed, pursuant to state law, when (1) the United States approved reasonably precise specifications; (2) the equipment conformed to those specifications; and (3) the supplier warned the United States about the dangers in the use of the equipment that were known to the supplier but not to the United States. Id. These principles were first outlined by McKay, 704 F.2d at 451, and then subsequently relied upon in Tozer and Boyle v. United Technologies. See Boyle v. United Technologies, 792 F.2d at 414.

592 792 F.2d at 403.
military matters. "The complex, subtle, and professional de-
cisions as to the composition, training, equipping, and
control of a military force are essentially professional mili-
tary judgments, subject always to civilian control of the
Legislative and Executive Branches." 399

By determining that federal common law should apply
and by establishing when it should apply, the Court, in
essence, was making complex decisions that the Fourth
Circuit in Tozer, the Supreme Court in other cases, 394 and
the United States Constitution 395 all state that the Court is
not in the position to make.

Article I, section 8 of the Constitution gives Congress
the power to raise and support armies, and to provide and
maintain a navy. 396 It further gives Congress the sole
right to make rules for the government and regulation of
the land and naval forces. 397 The constitutional power of
Congress is broad and sweeping, and "the lack of compet-
tence on the part of the courts is marked." 398 This limitation
on the judiciary is logical, as judges possess no power to
declare war or to raise, support and maintain an army or
navy. 399 Likewise, "[t]he judicial branch contains no
Department of Defense or Armed Services Committee or
other ongoing fund of expertise on which personnel may
draw." 400 The courts must, therefore, be very careful not
to substitute their "judgment of what is desirable for that
of Congress, or . . . [their] evaluation of evidence for a
reasonable evaluation by the Legislative Branch." 401
When the courts are asked to create an entirely new doc-
trine to answer questions of policy about which Congress

395 Id. at 405 (quoting Gilligan v. Morgan, 413 U.S. 1, 10 (1973)).
Morgan, 413 U.S. 1, 10 (1973); see also Orloff v. Willoughby, 345 U.S. 83, 93
(1953).
398 Id.
399 Id.; see also Rostker, 453 U.S. at 59.
400 Rostker, 453 U.S. at 65.
401 Tozer, 792 F.2d at 405.
has not spoken, the courts "have a special duty to identify the proper decisionmaker before trying to make the proper decision."402

Based on these principles, the judiciary has a duty to refrain from interfering with congressional rights when dealing with the government contractor defense. By establishing this defense without relying upon any act of Congress, the judiciary has stepped on the most fundamental right of Congress, namely the right to regulate the military.403 Immunity for a contractor lacks both the positive legal basis and the presumption that it furthers the congressional will.404 Consequently, Constitutional implementation of the government contractor defense, although it may or may not have some sound basis for its application, is constitutionally more appropriate "for those who write the laws, rather than for those who interpret them."405 This follows because "[t]he ultimate responsibility for these decisions is appropriately vested in the branches of the government which are periodically subject to electoral accountability. It is this power of oversight and control of military force by elected representatives and officials which underlies our entire constitutional system . . . ."406

402 See Boyle, 108 S. Ct. at 2528 (Stevens, J., dissenting).
403 See U.S. Const. art. I, § 8; see also Boyle, 108 S. Ct. at 2519-20 (Brennan, J., dissenting).
404 Boyle, 108 S. Ct. at 2519-20 (Brennan, J., dissenting).
406 Gilligan v. Morgan 413 U.S. 1, 10 (1973).
Comments