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Kevin N. Courtois

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"STANDARDS AND PRACTICES": THE JUDICIARY'S ROLE IN PROMOTING SAFETY IN THE AIR TRAFFIC CONTROL SYSTEM

KEVIN N. COURTOIS

I. INTRODUCTION

THE NATION’S air traffic control system is under indictment. In a Pulitzer Prize winning article, the Dallas Morning News proclaimed in large print, “System allows [aircraft] 50SK to fly blindly to death.”1 The reporter spent twenty-two months with the National Transportation Safety Board (NTSB) investigating the 1986 crash of a Singer Corporation Jet, 50 Sierra Kilo, that killed seven people in East Texas.2 The article pointed out that four of the NTSB’s nine findings of probable cause related to mistakes by FAA personnel.3 Referring to a 1977 NTSB report which warned of inadequate procedures for disseminating weather information to pilots, the reporter said “[t]he irony of 50 Sierra Kilo was that seven men died in part because the adequate level of safety the NTSB said didn’t exist in 1977 still didn’t exist in 1986. Nor does it exist today.”4 The author concluded that “[h]istorically,

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2 Id. at 11, col. 1.
3 Id. at 11, col. 1.
4 Id. at 11, col. 1.
the FAA has not only fought to keep separation as the controller's first priority, but also has battled tenaciously to keep controller responsibility—and the agency's legal liability—to a minimum."

Findings from the nation's longest major aviation trial, which concluded recently, illustrate the nature of the problem. At issue was government liability for the 1985 crash of Delta Flight 191 at Dallas/Fort Worth Airport (D/FW). The crash killed 137 people, including 128 passengers, 8 crew members and one person on the ground. Although the government avoided liability, Federal Judge Belew of the Northern District of Texas found: (1) D/FW air traffic control personnel breached a legal duty by failing to warn incoming aircraft of hazardous weather near the airport; (2) a National Weather Service (NWS) meteorologist breached a legal duty by taking a dinner break without making arrangements to have the weather monitored in his absence; and (3) a NWS weather coordinator breached a legal duty by failing to maintain a con-
tinuous weather watch during the meteorologist's absence.10

Although FAA statistics show that flying remains a relatively safe mode of transportation,11 disturbing incidents continue to arise which indicate the system is not as safe as it should be. For example, on October 14, 1989, traffic was heavy at D/FW airport as fans from the University of Texas and the University of Oklahoma converged on Dallas for the annual football game between the two schools.12 When the airport's computer system began to strain under the heavy load, a software technician attempted to take some non-critical applications off-line. In the process, the controller's radar screens were frozen for nineteen minutes. During this nineteen minute period, more than 100 aircraft were flying in the vicinity of the airport. Controllers reported "a bunch" of near midair collisions. According to the controllers, only good weather and high visibility prevented a disaster.13

Most aviation accidents result from the interplay of a variety of factors and judges, of course, have no control over most of these factors.14 The crash of 50 Sierra Kilo, for example, was attributed to a chain of events which included severe weather conditions, equipment malfunctions and mechanical limitations, in addition to "the

10 Id. at 1289.
11 In 1989, the NTSB reported 24 accidents, including 8 with fatalities, of passenger flights from the major scheduled airlines. As a fraction of the number of departures, the number of accidents among scheduled airliners is small, about .109 per 100,000 departures in 1989. AIR SAFETY WEEK, Jan. 22, 1990, at 1, col. 1.
12 COMPUTERWORLD, Feb. 26, 1990, at 1, col. 2.
13 Id. Computer malfunctions of this type have occurred on other occasions at D/FW airport. Controllers at D/FW keep records of computer "blackouts" and have documented at least 12 in the last two years. Most last only a few minutes but at least two lasted more than 14 minutes. COMPUTERWORLD, Mar. 5, 1990, at 1, col. 4.
14 Referring to Judge Belew's decision in the Delta 191 case, Roy Krieger, a former U.S. Justice Department attorney who defended the government in the Delta trial, commented that "[Judge Belew] can't improve the technology, and he can't tell them to speed up the development of technology." Dallas Morning News, Sept. 2, 1989, § A, at 28, col. 2. Government attorneys also pointed out that Judge Belew had no standing to question the level of funding the NWS gets or how it spends its money. Id. at 28, col. 4.
problem-plagued air traffic control system." Likewise, technological limitations, weather, and several human factors contributed to the crash of Delta 191.

Nevertheless, judges can affect the safety of the system. One of the purported goals of our tort law system is the regulation of safety, which is based on the assumption that judicial decisions influence the conduct of members of society and hence the safety of society. This comment will address the effect of aviation related jurisprudence on the safety of the air traffic control system. The issue is whether the current judicial approach to assessing government liability for aviation accidents fosters a safer system. Part II will address the Federal Tort Claims Act and the procedures for bringing suit against the government. Part III will cover the elements of a cause of action in negligence against the government. Part IV will analyze the effect of court decisions on the safety of the system.

II. SUING THE GOVERNMENT UNDER THE FTCA

Under the doctrine of sovereign immunity, parties injured by the government may sue for compensation only if the government consents to suit. The Federal Tort Claims Act of 1946 (FTCA) provides the necessary con-

\[\text{\textsuperscript{10} Hanners, supra note 1, at 11, col. 1.}\]
\[\text{\textsuperscript{11} Dallas Morning News, Sept. 2, 1989, § A, at 28. In addition to air traffic controller negligence, the court found: (1) under the prevailing weather conditions, a prudent pilot would have executed a missed approach; (2) Delta's overall training program, including wind shear instruction, had been lax, although not so derelict to be negligent; and (3) the captain of the flight was negligent in failing to satisfy medical information reporting requirements, although the captain's negligence was not the proximate cause of the crash. Crash at Dallas/Fort Worth, 720 F. Supp. at 1285-88.}\]
\[\text{\textsuperscript{12} See infra note 194 for a discussion of the goals of tort law.}\]
\[\text{\textsuperscript{13} See infra notes 21-44 and accompanying text.}\]
\[\text{\textsuperscript{14} See infra notes 45-193 and accompanying text.}\]
\[\text{\textsuperscript{15} See infra notes 194-210 and accompanying text.}\]
\[\text{\textsuperscript{16} Osborn v. Bank of the United States, 22 U.S. (9 Wheat.) 738, 798 (1824) ("The Constitution merely ordains, that a State, in its sovereign capacity, shall not be sued.").}\]
\[\text{\textsuperscript{17} h. 753, 60 Stat. 842 (1946) (codified in various sections of 28 U.S.C.).}\]
sent for some types of claims and sets the terms and conditions under which plaintiffs may bring suit. Actions against the government based on the negligent conduct of its employees in the provision of air traffic control services are subject to the provisions of the FTCA and must meet FTCA requirements and limitations.

The government's waiver of immunity under the FTCA is by no means complete; the Act includes a number of specific exceptions which preserve government immunity in specific areas. The exception that has generated the most attention in aviation litigation against the government is the "discretionary function" exception which protects the government against plaintiffs seeking to challenge the policy decisions of government employees. In the past, government attorneys have argued that an air traffic controller's conduct is protected under the discretionary function exception. Courts have consist-

23 28 U.S.C. § 1346(b) (1982). Section 1346(b) provides in pertinent part:
Subject to the provisions of Chapter 171 of this title, the district courts . . . shall have exclusive jurisdiction of civil actions on claims against the United States, for money damages, accruing on or after January 1, 1945, for injury or loss of property, or personal injury or death caused by the negligent or wrongful act or omission of any employee of the government while acting within the scope of his office or employment, under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.

Id.

24 For a discussion of the procedural aspects of bringing an action against the government under the FTCA, see Silverman, The Ins and Outs of Filing a Claim Under the Federal Tort Claims Act, 45 J. AIR L. & COM. 41 (1979).


26 Id. § 2680(a). Under section 2680(a), the United States should not be liable to "[a]ny claim . . . 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." Id.; see generally Comment, Discretion and the FAA: An Overview of the Applicability of the Discretionary Function Exception of the Federal Tort Claims Act to FAA Activity, 49 J. AIR L. & COM. 143 (1983); Note, The Federal Tort Claims Act: Discretion and the Air Traffic Controller, 38 J. AIR L. & COM. 413 (1972).

27 E.g., Eastern Air Lines v. Union Trust Co., 221 F.2d 62, 75 (D.C. Cir.) (stating "[t]he heart of the question [i]s whether the Government is correct in saying . . . that the tower operator's duties are public in nature and involve the exercise
ently rejected this argument, however, finding the air traffic control function more operational than discretionary. Although air traffic controllers exercise some amount of judgment in carrying out their responsibilities, the courts have determined that Congress simply did not intend to protect functions like those exercised by air traffic controllers.

*Eastern Air Lines v. Union Trust Co.* is the primary authority for the proposition that an air traffic controller’s responsibilities are operational in nature and, therefore, subject to suit under the FTCA. Eastern was a case against the government and a commercial airline which arose when two planes crashed after controllers cleared them to land on the same runway at the same time. The court rejected the government’s argument for protection under the discretionary function exception, characterizing the controller’s conduct as the handling of “operational details.” The court concluded that the FTCA permits suits against the government for damages which result when air traffic controllers negligently execute their of discretion and judgment’’), rev’d, 350 U.S. 907 (1955), modified, 350 U.S. 962 (1956).

28 See, e.g., id. (rejecting the government’s contention that a tower operator’s duties involve the exercise of discretion and judgment); Ingham v. Eastern Air Lines, 373 F.2d 227 (2d Cir.) (rejecting the government’s argument that reporting weather changes to incoming flights was a “discretionary” function which could not be used as the basis of liability), cert. denied, 389 U.S. 931 (1967).

29 *Eastern*, 221 F.2d at 75 (holding that air traffic controller conduct is not protected by the discretionary function exception).


31 Id. at 75.

32 Id. at 64-68. At about the same time as an Eastern Air Lines DC-4 was cleared to land on Washington National Airport’s runway three, a Bolivian P-38 which had just taken off developed engine trouble and requested permission to turn around and land. The Bolivian plane was cleared to land behind the DC-4 on runway three. The Bolivian pilot became confused about which plane he was supposed to follow onto the runway. Thinking the other plane cleared for the same runway was already on the ground, the pilot of the P-38 descended toward the runway and collided with the DC-4. All fifty-five passengers aboard the DC-4 died. The Bolivian pilot survived. This suit was one of several brought against Eastern, the Bolivian pilot, and the United States on behalf of the estates of passengers killed in the crash. Id. at 64-67.

33 Id. at 75. The court stated “tower operators merely handle operational de-
responsibilities.\textsuperscript{34}

The discretionary function exception, however, does prohibit suits challenging the content of regulations which govern air traffic controllers in the execution of their duties.\textsuperscript{35} In a suit against the government following the crash of a commercial airliner at Greater Cincinnati Airport, the Sixth Circuit affirmed a lower court decision exonerating the government from liability in an action based in part on the claimed failure of the government to impose stricter procedures.\textsuperscript{36} The general rule to be distilled from these cases is that government employee conduct which involves the execution of established policies can form the basis of a tort claim against the government but conduct involving the formulation of those policies is immune from judicial review.\textsuperscript{37}

FTCA claims must meet two requirements in addition to qualifying under the operational activity standard.\textsuperscript{38} First, the government employee must have acted within the scope of his employment.\textsuperscript{39} Second, the employee’s conduct must be of a nature that if a private person engaged in the same conduct that person would be held liable under the law where the act or omission occurred.\textsuperscript{40}

tails which are outside the area of the discretionary functions and duties referred to in § 2680(a).” \textit{Id.}

The discretionary function exception applies to policy level decisions rather than operational level conduct even though judgment may be required in executing operational details. Dalehite v. United States, 346 U.S. 15, 35 (1953) (holding that discretion exists where there is room for policy judgment).

\textsuperscript{34} Eastern, 221 F.2d at 75.

\textsuperscript{35} E.g., Miller v. United States, 522 F.2d 386 (6th Cir. 1975) (the discretionary function exception precluded the imposition of liability for failure to impose a stricter set of air safety regulations).

\textsuperscript{36} Id. at 387.

\textsuperscript{37} Rulli v. United States, 581 F. Supp. 1502, 1506 (W.D. Pa. 1984) (the FAA is immune from liability to the extent a complaint alleges governmental negligence growing out of the FAA’s promulgation of standards).


\textsuperscript{39} Id. Section 1346(b) reads in pertinent part, “while acting within the scope of his office or employment . . . ” \textit{Id.}

\textsuperscript{40} Id. Section 1346(b) reads in relevant part, “under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.” \textit{Id.}
Thus, if the government activity is a purely public function which is not engaged in by private persons, the activity may not form the basis of a suit against the government under the FTCA.41

The Eastern court also considered the public function issue at length.42 The court reviewed the history of air traffic control and the evolution of the control tower. It determined that the private sector was already providing air traffic control services to the public at the time the United States entered the business.43 Because private citizens could assume air traffic control duties, the government was acting in circumstances where a private person could potentially be liable to a claimant.44 Following Eastern, the law is settled that individuals may bring suits against the government predicated on the negligent conduct of air traffic control employees.

41 See Eastern, 221 F.2d at 73 (the Government claimed tower operators performed a regulatory function and, since no private person had the power of regulation, there was no analogous private liability).
42 See id. at 73-75.
43 See id. at 74. Air traffic controllers first appeared in the United States around 1929. See Seltzer, The Early Days of Airport Traffic Control, J. AIR TRAFFIC CONTROL, July-Sept. 1985, at 23. Municipalities employed the earliest controllers who directed traffic by waving flags from the end of the runway. By the early 1930's, several airports had radio equipped traffic control towers, including Cleveland, Midway in Chicago, Newark, and Hoover Airport in Washington, D.C. With the proliferation of instrument flight activity, which allowed flight in restricted visibility conditions, came the need for a system which would prevent mid-air collisions. Led by American Airlines, several air carriers cooperated to establish the first airway traffic control center in Newark in 1935. The dispatchers passed along traffic information to pilots to reduce the possibility of collisions. The airlines began similar operations in Chicago and Cleveland, providing all the financing and personnel required but servicing airline traffic exclusively. The federal government took over control of the three facilities in 1936 and extended service to general aviation. In the next few years, the Government continued to establish control centers. At the same time, however, municipalities were still building and operating control towers. For several years there was a dual system of federally and municipally operated control towers, but the Government eventually assumed control of all tower operations. Id. at 23-24.
44 See Eastern, 221 F.2d at 74 (the court noted that "an individual or corporation would of course be liable for the negligence of privately employed tower operators").
III. Elements of a Cause of Action

Plaintiffs who contend that an air traffic controller's conduct contributed to an airplane crash proceed against the government by addressing the standard elements of a negligence suit under applicable state law. State formulations of the elements of actionable negligence generally include: (1) a duty owed by the defendant to the plaintiff; (2) a breach of that duty; and (3) damages proximately resulting from that breach. The basilar issue in negligence analysis is "duty," which raises a question of law for the judge.

A. Duty and Breach

Under negligence theory, a plaintiff may obtain redress for a claimed wrong only if the plaintiff can establish that the defendant had an obligation to the plaintiff, a duty, where the breach of that duty amounts to a violation of the plaintiff's legal rights. Duties can arise when established by statute or administrative regulation, or may simply emerge from judicial decision. Once established, a

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45 Richards v. United States, 369 U.S. 1, 9 (1962). Where more than one state has sufficiently substantial contacts with the activity, the forum state is free to apply either its own law, the law of the place where the negligence occurred, or the law of the place where the injury occurred. Id. at 15.

46 See, e.g., In re Air Crash at Dallas/Fort Worth Airport, 720 F. Supp. 1258, 1279 (N.D. Tex. 1989) (stating the elements of a negligence action under Texas law).

47 Id.

48 RESTATEMENT (SECOND) OF TORTS § 281 (1965). The elements for a cause of action in negligence are as follows:

The actor is liable for an invasion of an interest of another, if

(a) the interest invaded is protected against unintentional invasion, and

(b) the conduct of the actor is negligent with respect to the other, or a class of persons within which he is included, and

(c) the actor's conduct is a legal cause of the invasion, and

(d) the other has not so conducted himself as to disable himself from bringing an action for such invasion.

Id. Courts generally state the elements in more concise terms. See e.g., Pierce v. United States, 679 F.2d 617, 617 (6th Cir. 1982) (elements of negligence include a duty on the part of the defendant, a failure to perform that duty, and damages or injuries proximately resulting).

49 RESTATEMENT (SECOND) OF TORTS § 285 (1965). Section 285 states,
duty defines the standard of care against which the defendant's conduct is evaluated to determine whether a breach of duty occurred.  

If a duty arises by statute or administrative regulation, the standard of conduct is often specified in the codification. For duties which arise by judicial decree, the standard of care is generally governed by the amorphous "reasonably prudent person" standard. Just as a codified standard is objective, the reasonable person criterion is an attempt to focus analysis on an external standard of conduct. Notwithstanding this attempt at objectivity, the determination of reasonable conduct in an infinite variety of factual circumstances, like those confronting air traffic controllers, necessarily involves a significant amount of subjective evaluation. 

(1) Air Traffic Controller Duty Based on Statute and Administrative Regulation

In aviation tort litigation against the government, courts often rely on FAA-established procedures as the standard of care for government employee conduct.
The primary source of procedures for federal air traffic controllers is the Air Traffic Controller’s Manual (ATCM). Because the manual is an external, objective set of rules for controller conduct, judicial reliance on the ATCM would presumably promote predictability consistent with the aims of the reasonable person theory. Regrettably, the case law evidences a significant lack of consistency.

Two related issues arise in the application of the ATCM standard which may account for this lack of consistency. The first issue arises in cases in which a controller is found to have failed to comply with a provision of the ATCM. The issue in this situation is whether the court should find that a violation of the ATCM amounts to negligence per se or merely prima facie negligence. The second issue arises in cases in which the controller is found to have complied with the ATCM. The issue then becomes whether proof of compliance with the manual will necessarily defeat a claim of negligence. Particularly, whether compliance with the manual is due care per

the Air Traffic Control Manual ("ATCM"), FAA Order 7110.65B, to provide for the safe, orderly and expeditious flow of air traffic"). But see, e.g., McGory v. United States, 651 F. Supp. 1337, 1342 (N.D. Ohio 1987) (the court makes no mention of the ATCM and states simply that "an air traffic controller has a duty of ordinary care to the pilots under his supervision"). For a list of cases in which courts evaluate air traffic controller conduct in light of the provisions of the ATCM, see generally Annotation, Liability of United States for Negligence of Air Traffic Controllers, 46 A.L.R. Fed. 24 (1980 & Supp. 1989).

Federal Aviation Admin., Air Traffic Control, Order 7110.65E (1988) [hereinafter ATCM]. "This handbook prescribes air traffic control procedures and phraseology for use by personnel providing air traffic control services." Id. at foreword.

See supra notes 57-106 and accompanying text for a discussion of the negligence per se and prima facie negligence standards.

Compare Baker v. United States, 417 F. Supp. 471, 485 (W.D. Wash. 1975) (stating the "duties and responsibilities of air traffic personnel are circumscribed by the Procedural Manuals in accordance with the standard of due care") with First of Am. Bank-Cent., 639 F. Supp. at 455 (stating controllers "have a duty to give pilots all applicable information and warnings specified in the ATCM and, in certain situations, to take steps beyond those set forth in the ATCM where necessary to assure pilot and passenger safety").
The following discussion will address the use of the ATCM by the courts in evaluating the standard of care for air traffic controllers.

a. **Is the Failure to Comply with FAA Procedures Negligence Per Se or Prima Facie Negligence?**

Under standard negligence principles, the violation of a statute or administrative regulation is either negligence per se or prima facie negligence. The common law principles of most states hold that the violation of a statute or administrative regulation is negligence per se, or negligence as a matter of law. *Eastern Air Lines v. Union Trust Co.* is an example of a court applying the negligence per se rule to an airline’s violation of a government regulation. In *Eastern*, the appellate court approved a district court jury charge stating that the violation of a Civil Aeronautics Administration regulation was negligence as a matter of law. The regulation required adherence to

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56 See infra notes 107-139 and accompanying text for a discussion of per se due care and prima facie due care.

57 See RESTATEMENT (SECOND) OF TORTS § 288B(1) (1965). “The unexcused violation of a legislative enactment or an administrative regulation which is adopted by the court as defining the standard of conduct of a reasonable man, is negligence in itself.” *Id.* “Usually it is said that such a violation is negligence ‘per se,’ or in itself.” *Id.* comment a.; *In re N-500L Cases*, 691 F.2d 15, 28 (1st Cir. 1982) (violation of FAA regulation is negligence per se).


59 See *PROSSER*, supra note 50, § 36, at 230. “Once the statute is determined to be applicable . . . and once its breach has been established, probably a majority of the courts hold that the issue of negligence is thereupon conclusively determined . . . .” *Id.* at 229-30 (citations omitted); see also *Gatenby v. Altoona Aviation Corp.*, 407 F.2d 443, 446-47 (3d Cir. 1968) (interpreting Pennsylvania law); *Rudelson v. United States*, 431 F. Supp. 1101 (C.D. Cal. 1977) (applying California law); *Southern Pac. Co. v. Castro*, 493 S.W.2d 491 (Tex. 1973) (applying Texas law).

Even when an administrative regulation does not expressly provide, or even imply, that tort liability may result from a violation of the regulation, courts may adopt the requirements of the enactment as the standard of conduct necessary to avoid liability for negligence. RESTATEMENT (SECOND) OF TORTS § 285 comment c (1965).


61 *Id.*
traffic patterns for an airport and the surrounding vicinity. The regulation was published in the Federal Register but the actual traffic patterns were not included. Even though the regulation was not published in its entirety, the airline was negligent as a matter of law because it operated an aircraft with actual knowledge of an officially prescribed standard.

Although the ATCM is neither statute nor regulation, some courts have held the ATCM has the force of law, based on the following logic. Congress mandated the development of the air traffic control system. A federal statute, the Federal Aviation Act, grants authority to the FAA Administrator to issue Federal Aviation Regulations (FAR's). The FAR's require controller compliance with

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62 Id. The Administrator of the Civil Aeronautics Board adopted and published, in the Federal Register in 1949, a regulation for the administration of Washington National Airport. The regulation referenced a map, which was not included, of the airport and vicinity with lines drawn over it showing intended flight patterns. Id. at 65.

63 Id.

64 Id.

65 See In re N-500L Cases, 691 F.2d at 28 (FAA regulations have the force and effect of law); United States v. Schultetus, 277 F.2d 322, 327 (5th Cir.) (government regulations have force of law), cert. denied, 364 U.S. 828 (1960); Ward v. United States, 462 F. Supp. 667, 673 (N.D. Tex. 1979) (Federal Aviation Regulations have force and effect of law). But see Baker, 417 F. Supp. at 485 (the characterization of the procedural manuals as "regulations having the force of law is . . . unacceptable").

66 See 49 U.S.C.A. §§ 1348(a), 1348(b)(4), 1303(c) (West 1976 & Supp. 1989). Section 1348(a) provides in pertinent part:

The Secretary of Transportation is authorized and directed to develop plans for and formulate policy with respect to the use of the navigable airspace; and assign by rule, regulation, or order the use of the navigable airspace under such terms, conditions, and limitations as he may deem necessary in order to insure the safety of aircraft and the efficient utilization of such airspace.

Id. § 1348(a). Section 1348(b)(4) provides in part: "The Secretary of Transportation is authorized, within the limits of available appropriations made by the Congress . . . (4) to provide necessary facilities and personnel for the regulation and protection of air traffic." Id. § 1348(b)(4).


68 49 U.S.C.A. § 1348(c) (West Supp. 1989). Section 1348(c) provides in part:

The Secretary of Transportation is further authorized and directed to prescribe air traffic rules and regulations governing the flight of aircraft, for the navigation, protection, and identification of aircraft, for the protection of persons and property on the ground, and for
the ATCM to provide for safe and efficient air traffic.\textsuperscript{69} The ATCM, therefore, carries the same weight as the statute and regulations which authorize it.

Consistent with this logic, some courts have applied a rule of negligence per se against the government when air traffic controllers are found to have violated provisions of the ATCM.\textsuperscript{70} Springer v. United States is one example.\textsuperscript{71} Springer involved the crash of a Cessna 210 aircraft shortly after take-off into wind shear conditions.\textsuperscript{72} The court concluded as a matter of law that it was negligence for the air traffic controllers to fail to relay reports of strong winds to the pilots as required by the ATCM.\textsuperscript{73}

Other government produced aviation safety manuals may not rise to the same level of authority as the ATCM.\textsuperscript{74}

\textit{Id.}

\textsuperscript{69} 14 C.F.R. § 65.45(a) (1989). "An air traffic control tower operator shall perform his duties with the limitations on his certificate and the procedures and practices prescribed in air traffic control manuals of the FAA, to provide for the safe, orderly, and expeditious flow of air traffic." \textit{Id.}

Pilots are required to know and follow the Airman’s Information Manual (AIM) prepared by the FAA and FAA Advisory Circulars. 14 C.F.R. § 61.105(a) (1989).

\textsuperscript{70} See, e.g., Associated Aviation Underwriters v. United States, 462 F. Supp. 674, 680 (N.D. Tex. 1978) (consistent with Texas case law holding the violation of a safety statute or administrative regulation is negligence as a matter of law, a violation of the Federal Aviation Regulations is negligence per se). In jurisdictions which hold that the violation of an administrative regulation is negligence per se, the defendant may still avoid liability if plaintiff fails to demonstrate defendant’s actions proximately caused plaintiff’s injuries or that plaintiff was contributorily negligent. Otherwise, the finding is conclusive of negligence, regardless of mitigating factors. See, PROSSER, supra note 50, § 36, at 230. For a list of cases applying the negligence per se rule in aviation litigation cases, see Annotation, supra note 52.


\textsuperscript{72} \textit{Id.} at 914, 923. Wind shear is defined as a change in wind direction and/or speed in a very short distance. \textit{Id.} at 918 n.32.

\textsuperscript{73} \textit{Id.} at 936. "The FAA and its air traffic controllers owed the aviation community and, in particular, [the pilot], the duty to conform their conduct to their own manuals and to provide adequate and complete information about severe weather, including wind shear." \textit{Id.}

\textsuperscript{74} See Ross v. United States, 640 F.2d 511, 518 (5th Cir. 1981) (some FAA manuals consist of advisory criteria rather than binding FAA regulations); Colorado Flying Academy, Inc. v. United States, 506 F. Supp. 1221, 1228 (D. Colo. 1981) (guidelines issued in a memo by the FAA to its regions prior to the accident
In *Ross v. United States*, the court noted a distinction between the ATCM and other FAA manuals. The case involved the crash of an airplane which struck a power line. The Fifth Circuit refused plaintiff's argument that the controller was negligent for failing to provide the correct clearance height over an obstacle as required by an FAA manual entitled "United States Standard for Terminal Instrument Procedures" (TERPS). Unlike the ATCM, the TERPS Manual could not form the basis of the controller's standard of care because it contained advisory criteria rather than binding FAA rules.

In some states, the violation of a duty of care defined by statute or administrative regulation creates only prima facie evidence of negligence. In these jurisdictions, the defendants may offer evidence to show that their conduct under the circumstances was reasonable in spite of violating a statute or regulation. Whether the violator was negligent then becomes a question for the fact finder.

The prima facie negligence concept has been applied to the provisions of the ATCM in suits against the government...
ment based on air traffic controller negligence. The prima facie negligence approach is better suited to the unpredictable nature of the air traffic controller’s task, which, on occasion, can make strict compliance with ATCM provisions a virtual impossibility. The most prominent external factor affecting air traffic controller performance is traffic volume. Several courts have acknowledged the intrinsic limitation on a controller’s effectiveness induced by a heavy traffic pattern, holding that an

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80 E.g., Rodriguez v. United States, 823 F.2d 735, 740 (3d Cir. 1987) (under New Jersey law, violation of an ATCM provision is treated as mere evidence in determining negligence); Baker, 417 F. Supp. at 485. In Baker, the court concluded:

The function of providing air traffic control service incorporates the elements of judgment and discretion in the handling of many thousands of different situations, and since the elements of judgment and discretion may be more relevant in any given situation than the express provisions of a manual, it is impossible to say even that failure to follow express provisions of the manual constitutes negligence, let alone negligence per se . . . . The manuals may be explicit in one instance and afford wide discretion in another. This is not to say that the manuals . . . should not be used, with the relevant facts . . . to determine the scope of duty.

Id. at 485.

The court’s distinction may not be material. The court apparently is saying that a violation of the manual alone is insufficient for a finding of negligence, and that the manual and other relevant facts must be considered together in the determination of negligence. When the violation of a regulation is seen as prima facie negligence, however, instead of negligence per se, the violation always may be considered in light of the totality of the evidence. See Prosser, supra note 50, at 230.

81 Under the Restatement (Second) of Torts, the violation of a statute may be “excused” under certain circumstances, such as when the defendant is confronted with a sudden emergency. Restatement (Second) of Torts § 288A (1965).

82 Trick, The Practical Problems of Approach and Landing Procedures from the Perspective of the Air Traffic Controller, 42 J. Air L. & Com. 47, 52 (1976). Mr. Trick was Regional Vice-President of the Professional Air Traffic Controllers Organization. Mr. Trick recognized that:

No other factor presents more of a problem to the controller than pure volume of traffic. Volume is a direct multiplier of all other complexities. A situation that may be routine under normal circumstances, can become extremely complex with the inclusion of just one or two additional aircraft. Why is volume such an important factor? Because it is a drain on the controller’s time—time that he may need desperately to resolve a problem that is rapidly getting out of hand in another part of his sector.

Id.
air traffic controller’s conduct is not chargeable if the pilot’s position of distress results from a controller’s reasonable attempts to provide a sufficient level of service to more than one pilot.83

For example, in Hamilton v. United States,84 controllers were faced with a crisis situation when two planes simultaneously approached the same runway.85 The controllers, relying on pilot provided information, calculated that there was sufficient spacing for the planes to land in sequence and cleared both planes to land on runway 27R.86 When the planes suddenly appeared on the horizon in close proximity, the controllers hastily, but unsuccessfully, attempted to direct the pilots in emergency evasive maneuvers.87 Although the controllers failed to issue an ATCM required warning, they were not found negligent because they had acted reasonably given the exigency of the situation.88

In Barbosa v. United States,89 a pilot and his passengers died when their small aircraft plunged into the ocean during the pilot’s attempt to navigate through a thunderstorm.90 Representatives of the deceased brought suit against the government claiming that the air traffic controllers were negligent in failing to provide weather information allegedly required by the ATCM.91 The controllers were unable to provide the weather information to the pilot because they had turned off their radar weather equipment, making it impossible to observe precipitation. The court determined that the controllers had

83 See, e.g., Franklin v. United States, 342 F.2d 581 (7th Cir.) (an air traffic controller is not supposed to give his undivided attention to any one aircraft in his control zone if other aircraft are present), cert. denied, 382 U.S. 844 (1965).
84 497 F.2d 370 (9th Cir. 1974).
85 Id. at 373.
86 Id. 373-74.
87 Id. at 374.
88 Id. at 375-76. The court held that “when, as here, the controller must make a split second decision, it is more important that he try to avoid the collision by giving instructions than warn the pilots that an emergency exists.” Id. at 376.
89 811 F.2d 1444 (11th Cir. 1987).
90 Id. at 1446.
91 Id. at 1445.
acted reasonably because the weather radar was turned off in an attempt to better identify and service the high volume of aircraft traffic in the vicinity at the time.\footnote{Id. at 1447.}

The court’s use of the prima facie negligence standard does not mean that the court will excuse air traffic controller mistakes in every case involving extenuating circumstances.\footnote{See, e.g., Delta Air Lines, Inc. v. United States, 561 F.2d 381, 393 (1st Cir. 1977) (controller’s negligence was not excused by an unusual emergency situation), cert. denied, 434 U.S. 1064 (1978).} For example, a controller at Boston’s Logan International Airport was distracted from servicing a Delta DC-9 when two other aircraft reported they were in a holding pattern at the same altitude.\footnote{Id. at 388.} The controller had never encountered a similar situation in twenty years of service.\footnote{Id. at 388.} The trial court found that the controller’s attention was “appropriately focused on concentrated communication efforts with . . . other aircraft.”\footnote{Id. at 388.} The court of appeals, however, determined that the controller could reasonably have managed the situation. The emergency situation, planes approaching one another at the same altitude, was diffused with sufficient time for the controller to return his attention to the Delta flight.\footnote{In re Aircrash Disaster at Boston, Massachusetts, July 31, 1973, 412 F. Supp. 959, 991 (D. Mass. 1976).} While the controller’s anxiety was understandable, it did not justify the government’s failure to provide an appropriate level of service to all aircraft under its control.\footnote{Id.}

Another case similarly illustrates that courts applying the prima facie negligence standard will not automatically exonerate a controller merely because the controller is

\footnote{Delta Air Lines, Inc., 561 F.2d at 393.}

\footnote{Id.}

\footnote{Id.}
operating under difficult conditions. In *Daley v. United States*, plaintiffs brought an action against the government on behalf of passengers killed when a small plane collided with a television antenna tower. On appeal of a judgment for the plaintiffs, the government attempted to convince the court that a controller could not predict that a pilot would fly his aircraft directly into a tower.

The United States complained that the court was applying a standard of care requiring an "incomprehensible degree of human perception or clairvoyance," rather than simple reasonableness.

The Eleventh Circuit rejected the government's argument, concluding that the standard of care applied was reasonable care with consideration of surrounding circumstances. The controller failed to carry out duties required by the ATCM including tracking the plane's location and warning the pilot of impending obstacles.

The court recognized that the obligation imposed on the controllers was exacting under the circumstances. The standard imposed was justified, however, because the degree of care required to attain ordinary care increased in accordance with the dangers apparent to the controller. Because the controllers knew that the pilot was in an emergency situation, engine failure under instrument flight conditions, reasonable care on the controller's part required a heightened level of attention to the disabled aircraft.

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99 792 F.2d 1081 (11th Cir. 1986).
100 *Id.* at 1082.
101 *Id.* at 1085.
102 *Id.* (quoting United States' brief).
103 *Id.* at 1086.
104 *Id.* The ATCM requires air traffic controllers to issue safety advisories when "aware the aircraft is at an altitude which . . . places it in unsafe proximity to [an] obstruction . . . ." *Id.* (quoting ATCM, supra note 53, § 133 note 3(a)).
105 *Daley*, 792 F.2d at 1085 (under Florida law, the duty of care owed is commensurate with the risk involved).
106 *Id.* The court's conclusion about the effect of an emergency situation on the standard of due care runs counter to the sudden emergency doctrine. Here, the court expected the controller to achieve a higher degree of care in an emergency situation. See *id.* The more common application of the sudden emergency doc-
b. Is Compliance with FAA Procedures Due Care Per Se or Prima Facie Due Care?

Another issue which arises when courts apply an ATCM-based standard of care relates to the consequences of a factual finding of controller compliance. As a general rule, courts hold that statutes and administrative regulations establish a minimum level of due care and, therefore, compliance is not conclusive on the question of liability. Accordingly, many courts hold that reasonable care occasionally calls for controllers to take steps in addition to those specifically listed in the procedure manual.

trine is to "excuse an unfortunate human choice of action that would be subject to criticism as negligence were it not that the party was suddenly faced with a situation which gave no time to reflect upon which choice was the best." J. Lee, Modern Tort Law § 3.37 (1988).

107 See, e.g., Wilson v. Piper Aircraft Corp., 577 P.2d 1322, 1325 (Or. 1978) (noting that the court could find no cases holding compliance with a statutory or administrative safety standard as a complete defense).

108 See In re Air Crash at Dallas/Fort Worth Airport, 720 F. Supp. 1258, 1288 (N.D. Tex. 1989) ("Air traffic controllers are required to give all information and warnings specified in the manuals, and in certain situations they must give warnings beyond the manuals."); Springer, 641 F. Supp. at 935 ("[T]he duty of an air traffic controller to impart critical information to a pilot may sometimes exceed the literal obligations imposed by the operations manuals.") (citing Martin v. United States, 586 F.2d 1206, 1210 (8th Cir. 1978)).

Predictably, the government often argues that compliance with provisions of the manual is sufficient to preclude liability. In at least one case, however, the government has conceded that the air traffic controller's duties extend beyond the provisions of the manual. See Martin v. United States, 586 F.2d 1206, 1210 (8th Cir. 1978). "The government concedes that there may be situations where the duty of an air traffic controller to impart critical information to those dependent upon it goes beyond the duties imposed by the operations manuals of the F.A.A."

Id. 

Martin involved the crash of a twin engine Cessna in rainy weather causing the deaths of four people. Id. at 1208. The owner of the plane and families of the deceased brought an FTCA action against the government claiming that air traffic controllers negligently failed to apprise the pilot of a change in weather conditions. The court determined that if the controllers had properly reported weather conditions the pilot probably would not have attempted an approach into the airport. Although the government conceded that controllers' responsibilities might exceed the express requirements of the ATCM in some cases, it felt that ATCM provisions should control in the situation at hand. Id. at 1210. The controller's were aware of the weather changes but, under the ATCM, were not required to inform pilots until after observations were "taken and recorded." Since the weather observation was not complete, the government argued, the duty to warn
In spite of the general rule, some courts appear to apply a due care per se rule to ATCM compliance. These opinions imply that air traffic controllers have no obligation to assist pilots beyond providing the services specifically required by the ATCM.\textsuperscript{109} For example, \textit{Biles v. United States}\textsuperscript{110} involved the crash of a Mitsubishi MU-2 aircraft into the side of a mountain.\textsuperscript{111} The plane crashed into the north-south ridge line on Lookout Mountain, Georgia, at an elevation of about 2000 feet.\textsuperscript{112} The pilot was flying in heavy weather and was in contact with an air traffic controller shortly before the crash, but the pilot never received a warning of the potential danger.\textsuperscript{113} The court cited the applicable provision of the ATCM as follows, "Issue a safety advisory to an aircraft if you are aware the aircraft is of an altitude which, \textit{in your judgment}, places it in an unsafe proximity to terrain, obstruction or other aircraft."\textsuperscript{114} Although the controller never issued a warning, the court found that the controller had complied with the manual, in part because the warning was required at the controller's discretion.\textsuperscript{115} Furthermore, the court found, compliance with the manual exonerated the controller.\textsuperscript{116}
Duty Based on Voluntary Undertaking

As discussed previously, in addition to arising by administrative regulation, the controller's duty to the pilot may be established by judicial decision.\textsuperscript{117} Courts articulate two common law theories under which air traffic controllers possess a legally cognizable obligation to pilots and passengers. First, some courts maintain that a duty arises because the government voluntarily assumed the responsibility of providing control services when it is not required by statute to do so.\textsuperscript{118} Second, courts have pointed to the reliance by pilots and passengers on the government's services to justify a duty of due care.\textsuperscript{119}

In \textit{Ingham v. Eastern Airlines, Inc.},\textsuperscript{120} the Second Circuit considered the issue of whether a controller's duty of care imposed responsibilities in addition to those described in the ATCM.\textsuperscript{121} The \textit{Ingham} court indicated that it need not rely on a violation of an administrative safety measure to establish liability because the controller's duty arose when the government voluntarily undertook the responsibility of providing services which were not required by statute.\textsuperscript{122} Even if FAA regulations did not require controllers to advise pilots of weather conditions, the court reasoned, the decision to provide weather services would

\textsuperscript{117} See \textsuperscript{supra} note 49 and accompanying text for a discussion of how duties arise under tort law.

\textsuperscript{118} See, e.g., \textit{Ingham v. Eastern Air Lines, Inc.}, 373 F.2d 227, 236 (2d Cir.), cert. denied, 389 U.S. 931 (1967). "It is now well established that when the government undertakes to perform services, which in the absence of specific legislation would not be required, it will, nevertheless, be liable if these activities are performed negligently." \textit{Id.}

\textsuperscript{119} See, e.g., \textit{Id.} (stating "[i]n light of [the carrier's] reliance, it is essential that the government properly perform those services it has undertaken to provide albeit voluntarily and gratuitously"); \textit{Gill v. United States}, 429 F.2d 1072, 1075 (5th Cir. 1970) (stating "[t]he government's duty to provide services with due care to airline pilots may rest upon . . . general pilot reliance on the government for a given service").

\textsuperscript{120} 373 F.2d 227 (2d Cir.), cert. denied, 389 U.S. 931 (1967).

\textsuperscript{121} \textit{Id.} at 234. "The issue, as we see it, therefore, is not \textit{whether} the government had a duty to provide such information, but rather what was the \textit{scope} of that duty." \textit{Id.}

\textsuperscript{122} \textit{Id.} at 236.
lead to pilot reliance.\textsuperscript{123} Based on this reliance, the court could require the government to provide weather services properly.\textsuperscript{124}

The analytical problem with \textit{Ingham} is that the court's discussion of controller responsibilities that exist outside the directives of the ATCM was unnecessary. As a factual matter, the air traffic controllers in the \textit{Ingham} case negligently failed to perform a task required by the ATCM.\textsuperscript{125} Because the controller's failure to comply with the ATCM established a sufficient basis for imposing liability, the court's consideration of additional controller responsibilities was superfluous. In subsequent cases, courts relied on the \textit{Ingham} court's precedent to impose liability on the government by using a similar duty analysis.

One of the most widely cited cases for the proposition that the ATCM does not solely define the reasonable conduct of a controller is \textit{Hartz v. United States}.\textsuperscript{126} Relying on \textit{Ingham}, the court explicitly rejected the contention that a controller's responsibilities were limited to those defined in the ATCM.\textsuperscript{127} The \textit{Hartz} court's analysis, however, suffers from the same infirmity as that of the \textit{Ingham} court. In \textit{Hartz}, the controller violated an FAA safety provision requiring controllers to warn pilots of jet turbulence.\textsuperscript{128} The court could have imposed liability simply on the basis

\textsuperscript{123} Id. "The carriers relying on the FAA to keep their pilots informed of current weather conditions, would be likely to reduce both the quantity and quality of their own weather reporting." \textit{Id.}

\textsuperscript{124} \textit{Id.}

\textsuperscript{125} \textit{Id.} As the court noted,

\begin{quote}
In any event, the failure of the government to inform the crew that the visibility had dropped from one mile to three-quarters of a mile was a violation of [ATCM] § 265.2's command that "subsequent changes, as necessary, shall be transmitted," and [the trial court] properly concluded that this omission constituted negligence on the part of the government.
\end{quote}

\textit{Id.}

\textsuperscript{126} 387 F.2d 870 (5th Cir. 1968).

\textsuperscript{127} \textit{Id.} at 878. "We disapprove the view that the duty of an FAA controller is circumscribed within the narrow limits of an operations manual and nothing more." \textit{Id.}

\textsuperscript{128} \textit{Id.} The controller had a responsibility to warn the pilot of the potential danger arising from wing tip vortices caused by a recently departed airliner. \textit{Id.}
of the rule violation. The court’s resort to the common law theory of reliance was unnecessary. The value of *Hartz* and *Ingham* as precedent for the proposition that a controller’s duty of care extends beyond the level of care defined in the ATCM is, therefore, somewhat suspect because in each case an independent basis of liability existed.

In contrast to *Ingham* and *Hartz*, *Ross v. United States* was a case in which the court’s reliance upon the judicially created duty concept was essential to a finding of liability. The Fifth Circuit found the government liable because an employee supplied the pilot with an incorrect minimum descent altitude (MDA). The court determined that the erroneous information contributed to the pilot’s flying into a power line and crashing. Significantly, no safety regulation required the controller to provide an MDA even if one was specifically requested by the pilot. The duty in this case arose, not by virtue of a violated safety regulation, but because the controller voluntarily accepted the responsibility of providing an MDA.

An historical argument exists in support of the *Ross* duty formulation. Control tower operators existed for several years before the federal government attempted regulation. Originally, control towers were operated by municipalities. Although a municipality built the first control tower in 1931, the Civil Aeronautics Board (CAB) did not certify operators until 1938 or issue a Manual of Operations to establish air traffic control procedures until 1941. Presumably, plaintiffs could have

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129 640 F.2d 511 (5th Cir. 1981).
129 Id. at 519-20. The minimum descent altitude (MDA) is the altitude which a pilot must maintain until he is able to see markings identifiable as the approach end of the runway. 14 C.F.R. § 91.117 (removed 1981).
130 640 F.2d at 517-18.
131 Id. at 519. The ATCM does not require a controller to give the MDA. Id.
132 Id.
133 See Eastern, 221 F.2d at 74. For a brief history of the air traffic control function see supra note 43.
134 Eastern, 221 F.2d at 74.
135 Id.
sued the nonfederal control tower operators in tort for the negligent execution of their duties. Therefore, intrinsic tort liability exists in the function of controlling air traffic. Once the government undertook to provide these services, which were not required by statute, it became subject to the same duties that would attach to any private entity undertaking those functions.137

Currently, federal regulations require that air traffic controllers perform their duties in accordance with procedures prescribed in the ATCM.138 Use of the ATCM as the standard of conduct is convenient because most cases involve conduct at least facially violative of ATCM provisions.139 After Ross, however, courts may impose duties extending beyond those prescribed in the ATCM based upon an alternative duty theory, the government’s duty arising from voluntarily undertaking to provide a service.

(3) Duty Based on Pilot Reliance

The pilot and controller share an inherently interdependent relationship and, predictably, the other common law doctrine upon which courts have premised the controller’s duty is that of pilot reliance.140 Some decisions have indicated that the reliance theory is an alternative to

137 See Restatement (Second) of Torts § 323 (1965). Section 323 provides: § 323. Negligent Performance of Undertaking to Render Services One who undertakes, gratuitously or for consideration, to render services to another which he should recognize as necessary for the protection of the other’s person or things, is subject to liability to the other for physical harm resulting from his failure to exercise reasonable care to perform his undertaking, if (a) his failure to exercise such care increases the risk of such harm, or (b) the harm is suffered because of the other’s reliance upon the undertaking.

138 14 C.F.R. § 65.45(a) (1989). “An air traffic control tower operator shall perform his duties in accordance with… the procedures and practices prescribed in the air traffic control manuals of the FAA, to provide for the safe, orderly, and expeditious flow of air traffic.” Id.

139 See infra notes 151-174 and accompanying text for a discussion of the causation element.

140 See Gill, 429 F.2d at 1075 (5th Cir. 1970).
the administrative regulation based duty theory. In *Gill v. United States*, for example, the court stated that the government's duty to provide services with due care to airplane pilots may rest either upon the requirements of the procedure manuals or upon the general reliance by pilots on the government for a specific service. The reliance theory is analytically indistinct from the assumption of service theory discussed previously. As with the reliance theory, the assumption of service theory is generally raised in cases which involve a violation of the ATCM. Therefore, whether the courts intend the reliance theory as an independent basis of liability is not clear.

In *Murff v. United States*, a student pilot and his instructor were killed in a crash following a mid-air collision with another plane. Several factors contributed to the crash and the court acknowledged that responsibility for the accident was shared by the young pilot, his instructor, and the air traffic controller. All were guilty of omissions and oversights. The court said the duty of the government to assist pilots rests both upon the regulations of the FAA and the general reliance of pilots on the government.

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141 Id.
142 429 F.2d 1072 (5th Cir. 1970), aff'd on rehearing, 449 F.2d 765 (5th Cir. 1971).
143 Id. at 1075.
144 See supra notes 117-139 and accompanying text for a discussion of duty based on voluntary undertaking.
147 Id. at 291-93.
148 Id. at 292-94. The pilot wore a hood restricting his vision to the plane's instrument panel in a procedure used to simulate limited visibility flying. The instructor bore the responsibility of looking out for other planes. Both the pilot and the instructor, however, were responsible for failing to file a flight plan, failing to request radar service from air traffic control, flying without lights turned on, flying above the 5000 foot ceiling established by the flight school, maneuvering near a frequent intersection of IFR traffic, and failing to notify the air traffic controller of location and intentions. Although the controller was hampered somewhat because the plane's transponder was "weak," resulting in a faint image on the radar screen, the controller was negligent in failing to issue instructions to maintain separation between the two planes. Id. at 292-94.
for a given service. The court did not indicate whether the duty arising from the government regulation alone could support a finding of liability. As a factual matter, however, the court found the air traffic controllers violated FAA regulations.

B. Actual and Legal Causation

Regardless of whether an air traffic controller fails to comply with FAA procedures, or is otherwise unreasonable in conduct, no liability will attach unless the controller’s actions or omissions legally cause the plaintiff’s injury. The legal causation element requires the plaintiff to demonstrate both that the defendant’s conduct was the actual cause of the plaintiff’s injuries and that the nexus between conduct and injury is close enough to warrant legal recognition. Actual cause, often referred to as cause in fact, requires either that defendant’s conduct was “substantial factor” in the plaintiff’s injury or a “but for” cause of the injury, depending upon jurisdiction. The nexus requirement is generally labeled “proximate cause” and involves either a test of foreseeability or directness.

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149 Id. at 293. Here, the pilots relied on the government for safety advisories and directions to avoid collisions. Id.
150 Id. at 294. “FAA manuals further emphasize that controllers ... are specifically advised to ‘continually issue instructions to pilots on what headings to follow to maintain separation, what altitudes to fly to remain clear of traffic ...’. ” Id. at 293-94.
151 See Restatement (Second) of Torts § 430 (1965). “In order that a negligent actor shall be liable for another’s harm, it is necessary not only that the actor’s conduct be negligent toward the other, but also that the negligence of the actor be a legal cause of the other’s harm.” Id.; see, e.g., Associated Aviation Underwriters, 462 F. Supp. at 681. “It is well established ... that before one can be held liable, his negligent acts must be the proximate cause of the injury sustained.” Id.
152 See Prosser, supra note 50, § 42, at 244. “Once it is established that the defendant’s conduct has in fact been one of the causes of the plaintiff’s injury, there remains the question whether the defendant should be legally responsible for what he has caused.” Id. “As a practical matter, legal responsibility must be limited to those causes which are so closely connected with the result and of such significance that the law is justified in imposing liability.” Id. § 41, at 236-37.
153 See id. § 41, at 265-68.
154 Id. § 42, at 273.
Actual cause is rarely a pivotal issue although, on occasion, air traffic controller negligence coincides with but does not contribute to an accident. In *Pierce v. United States*,\(^{155}\) for example, a family of six died when the pilot of their small plane suffered vertigo after flying into an isolated cloud.\(^{156}\) The controller failed to warn the pilot of significant storms but the crash occurred well before the plane reached the storms so the controller's oversight was not the actual cause of the crash.\(^{157}\)

In the more typical case, when a controller is negligent and a plane crashes, the controller's negligence plays some role in the crash. The issue becomes one of proximate cause, that is, whether the connection was foreseeable or direct enough to warrant the imposition of liability. In *Black v. United States*,\(^{158}\) three members of the Black family died when their Cessna crashed in severe weather between Baton Rouge, Louisiana, and Fort Worth, Texas. While in route the pilot requested wind information from a Flight Service Station (FSS)\(^{159}\) in Alexandria, Louisiana.\(^{160}\) The FSS attendant provided the information requested but, contrary to the requirements of part 439 of the Federal Aviation Flight Assistance Service Handbook, did not request the pilot's route and destination or transmit relevant weather advisories.\(^{161}\) In spite of the FSS attendant's failure to comply with the relevant safety rules, the Fifth Circuit overturned the district court's finding of FSS operator negligence because the storm was so large and severe that it was reasonable to

\(^{155}\) 718 F.2d 825 (6th Cir.), *reh'g denied*, 722 F.2d 289 (1983).

\(^{156}\) *Id.* at 827.

\(^{157}\) *Id.* at 828. The plane was 50 miles short of the severe weather when it crashed. *Id.*

\(^{158}\) 441 F.2d 741 (5th Cir.), *cert. denied*, 404 U.S. 913 (1971).

\(^{159}\) The FAA Flight Service Station's (FSS) primary function is to provide weather briefing services. *See generally Federal Aviation Administration & National Oceanic and Atmospheric Administration, Aviation Weather Services 2-3* (1977). The FSS offers pre-flight and in-flight briefings, makes scheduled and unscheduled weather broadcasts, and furnishes weather advisories to flights in the FSS area. *Id.*

\(^{160}\) 441 F.2d at 742.

\(^{161}\) *Id.* at 743.
assume the pilot noticed it on his own. In the court's opinion, this indicated the pilot would have flown through the storm in spite of any warning.162

Using similar reasoning, the First Circuit Court of Appeals exonerated the government for its role in the 1973 crash of a Delta DC-9 which killed 89 people during a fog-bound approach into Boston's Logan International Airport.163 The controller in this case was at fault for failing to provide information to the pilot concerning the correct angle of descent into the airport and for failing to warn of heavy fog until late in the plane's approach.164 The court found that the misinformation did not necessarily prevent a successful completion of the pilot's approach.165 The court concluded that the plaintiffs failed to show the pilots would have acted any differently had they received a proper level of service from the controller.166

The Delta 191 case involved an extreme level of government negligence which failed to result in liability due to a failure of proof on the proximate cause element.167 Shortly before reaching the runway, the flight encountered a severe downward wind shear which caused the plane to crash.168 The court determined that the pilots

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162 Id. at 745.
163 Delta Air Lines, Inc., 561 F.2d at 381.
164 Id. at 390-93. The air traffic controller's violations of procedures included: (1) giving the pilot a vector requiring an intercept 15 degrees above the maximum specified in the procedures; (2) failing to provide a position report prior to reaching the outer marker; (3) forcing the plane to intercept the glide marker from above; and (4) switching the plane from radar operator to approach tower well inside of the marker. Id.
165 Id. at 395-97. Interestingly, the court relied in part on the pilot's failure to complain about the poor service they were receiving from the controllers. The court found significant the pilot's use of "alrighty" to acknowledge approach clearance and that "the cockpit voice recorder [revealed] that the crew did not react at all to the tower transmission reporting the fog bank when it was finally received." Id. at 395-96.
166 Id. at 397.
168 Id. at 1265. A wind shear is a sharp change in wind direction or speed. Id. A down draft shear can result when a rain cloud rises from near ground level to a height above condensation level. When the water condenses, it comes rushing down from the cloud accompanied by an intense current of air. As the down draft
and controllers were negligent. FAA controllers breached a legal duty by failing to broadcast weather reports warning of the existence of storm centers. A NWS meteorologist, who was responsible for formulating weather briefings and forecasts, breached his legal duty by taking a dinner break without arranging for a replacement during his absence. A NWS weather coordinator, whose primary responsibility was the dissemination to controllers of weather information obtained from pilots and meteorologists, violated his legal duty by failing to continuously monitor weather conditions.

In spite of these failings, the government was not liable for the accident. The air traffic controllers' and NWS employees' failure to forecast and transmit relevant weather information to the pilots was not the proximate cause of the crash because the pilots obtained from other sources substantially the same weather information which would have been available from the government. The court held that no evidence was offered to show the crew would have acted differently if the government had confirmed information already known to the pilots.

C. Defenses: Contributory and Comparative Negligence

In some cases, the government can avoid liability in spite of controller fault if the pilot also was at fault.

nears the ground, it takes a 90 degree turn, producing horizontal outflows of air in different directions from the center. Id.

A down draft wind shear presents special problems for aircraft making their final descent. The plane first encounters the horizontal outflow as a head wind which pushes the plane above the pilot's intended angle of descent (glide slope). If the pilot decreases altitude to recover the proper angle of descent at the same time the aircraft meets the center of the down draft, the plane may be pushed into the ground. Id. at 1264-66.

See supra note 15 for a discussion of the negligence of involved parties.

In re Air Crash at Dallas/Fort Worth Airport, 720 F. Supp. at 1289.

Id. at 1264, 1289.

Id.

Id. at 1290. The crew obtained weather information through personal observation, from Delta's own Meteorology Department, and from transmissions of other aircraft which the Delta crew overheard. Id. at 1280-82.

Id. at 1290.
Although the air traffic controller is responsible for the safety of the aircraft, the pilot is concurrently responsible.\textsuperscript{175} The determination of relative liability is a question of fact.\textsuperscript{176} Of the two parties, liability is more likely to fall on the pilot because the pilot is ultimately accountable for the safe conduct of the aircraft.\textsuperscript{177} Depending on whether the jurisdiction has adopted a contributory or comparative negligence rule, a finding of negligence by the plaintiff may completely bar recovery, or simply reduce defendant's liability in proportion to the fault contributed by plaintiff.\textsuperscript{178}

To the government's favor, the controller is permitted to assume that pilots will exercise reasonable care.\textsuperscript{179} For example, once a controller warns a pilot of dangerous weather conditions, the controller may assume that the pilot will take subsequent reasonable precautions.\textsuperscript{180} In \textit{Spaulding v. United States},\textsuperscript{181} the court specifically rejected the plaintiff's argument that an air traffic controller has a duty both to restrain a pilot from taking off in hazardous

\textsuperscript{175} \textit{Spaulding v. United States}, 455 F.2d 222, 226 (9th Cir. 1972) (stating the standard of due care is concurrent, resting upon both the airplane pilot and ground aviation personnel).

\textsuperscript{176} \textit{Rodriquez}, 823 F.2d at 746. "[W]here both controllers and pilots are operating under imposed duties, both the degree of negligence in performing those duties and the extent to which the negligent performance of those duties causes the accident are questions of fact." \textit{Id.}

\textsuperscript{177} \textit{See In re Air Crash Disaster at New Orleans}, 544 F.2d 270, 276 (6th Cir. 1976) ("the pilot always remains the final authority as to [the] aircraft" (citation omitted)); American Airlines, Inc. v. United States, 418 F.2d 180, 191-92 (5th Cir. 1969) ("the pilot in command of the aircraft shall be directly responsible for its operation and shall have final authority as to operation of the aircraft" (quoting United States v. Schultetus, 277 F.2d 322, 326 (5th Cir.), \textit{cert. denied}, 364 U.S. 828 (1960)); \textit{see also} 14 C.F.R. § 91.3(a) (1989). "The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft." \textit{Id.}

\textsuperscript{178} \textit{See generally Comment, The Reform of Joint and Several Liability Theory: A Survey of State Approaches, 54 J. Air L. & Com. 627 (1988)}.

\textsuperscript{179} \textit{See Colorado Flying Academy, Inc. v. United States}, 506 F. Supp. 1221, 1228 (D. Colo. 1981) (controller is not "required to foresee or anticipate the unlawful, negligent or grossly negligent acts of pilots"), aff'd, 724 F.2d 871 (10th Cir. 1984), \textit{cert. denied}, 476 U.S. 1182 (1986).

\textsuperscript{180} \textit{See Spaulding}, 455 F.2d at 227 (a pilot cannot ignore weather information he has been given).

\textsuperscript{181} 455 F.2d 222 (9th Cir. 1972).
weather and to deter a pilot from proceeding with an airborne flight when the dangers to the passengers on board are reasonably apparent. The court found that the decision whether to take off into hazardous weather was the pilot's, and further found that federal employees had no duty to comment upon or interpret the information they delivered.

By the same logic, the air traffic controller need not warn a pilot if the controller reasonably believes that the pilot is already aware of a dangerous situation, or when the pilot is in a better position than the controller to assess the risks of a situation. In Redhead v. United States, a controller granted the pilot of a twin engine turboprop a cruise clearance of 5,000 feet as the pilot approached a mountainous area in overcast conditions. Standards of practice maintain that a pilot may descend below an assigned cruise clearance only after making visual contact with the ground. The controller noticed the

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182 Id. at 227; see 14 C.F.R. § 91.3(a) (1989). The Professional Air Traffic Controller's Association and the Air Line Pilot's Association disagree over whether air traffic controllers should have the authority to deny take-offs and landings in adverse weather conditions ("go-no go" authority). See Trick, supra note 82, at 54. Although the Professional Air Traffic Controller's Association has argued in favor of having this authority, the FAA has not approved it. Id. The Air Line Pilots Association maintains that controllers are neither trained nor qualified to make the judgment required and that "go-no go" authority should properly remain with the pilot. See O'Donnell, Operational Problems from the Professional Pilots Perspective, 42 J. Air L. & Com. 39, 42 (1976).

183 Spaulding, 455 F.2d at 227. The controllers "had no duty to quiz the pilot on his qualifications and flight plan, or to offer a gratuitous opinion that he should delay his flight." Id.

184 Id. "By the time the pilot contacted Austin, the thunderstorms were apparent to him. He did not have to be warned of that danger." Id.

185 Redhead v. United States, 686 F.2d 178, 183 (3d Cir. 1982), cert. denied, 459 U.S. 1203 (1983) ("The controller was in no better position to inform the pilot about the weather than the pilot was himself.").


187 Id. at 181.

188 Id. The pilot was flying under instrument flight rules (IFR). Id. The court explained the difference between IFR and visual flight rules (VFR) as follows:

The flight of general aviation aircraft may be conducted under either one of two different sets of flight rules—visual flight rules (VFR), or instrument flight rules (IFR). Under VFR, a pilot directs his aircraft according to what he can see, navigating from place to place accord-
plane descend to 2600 feet but never issued a warning.\textsuperscript{189} Shortly thereafter, the plane crashed into a mountain.\textsuperscript{190} The court assessed blame to the pilot, finding the pilot’s decision to change altitude in spite of low visibility, rather than the controller’s failure to warn, as the cause of the crash.\textsuperscript{191} To balance the analysis, courts may not hold pilots responsible when the pilots did not know, or cannot be held to have known, material facts necessary for the safe operation of the aircraft.\textsuperscript{192} Further, the pilot’s negligence does not, in and of itself, absolve the government of liability.\textsuperscript{193}

IV. ANALYSIS

Tort law is built upon a foundation of several policy considerations. One of tort law’s most important goals is the regulation of safety.\textsuperscript{194} Accordingly, when governing to visual cues outside his aircraft. Under IFR, it is presumed that pilots are unable to see either other aircraft or the ground and are guided by air traffic controllers. A pilot flying under IFR must file an IFR flight plan, indicating his destination, proposed route of flight and requested altitude. Control of the aircraft is maintained by reference to various instruments on board, and navigation is accomplished through various electronic navigational aids, which receive and interpret data broadcast from ground stations.\textsuperscript{195}

\textit{Id.} at 180 n.1.

\textsuperscript{189} \textit{Id.} at 181. The controller questioned the pilot’s intentions when the pilot first began to descend below his assigned cruise altitude. The pilot responded, “We just tak’n a look [W]e’re getting some ground contact here, and I think we’re gonna make it.” \textit{Id.} FAA regulations, however, require an air traffic controller to issue “a low altitude alert” if, in the controller’s judgment, the aircraft appears to be in unsafe proximity to terrain or obstructions. \textit{Id.}

\textsuperscript{190} \textit{Id.} The pilot, co-pilot and both passengers died in the crash. \textit{Id.} at 180.

\textsuperscript{191} \textit{Id.} at 183-84.

\textsuperscript{192} See \textit{American Airlines}, 418 F.2d at 193 (pilot is charged only with that knowledge which in the exercise of the highest degree of care the pilot should have known).

\textsuperscript{193} \textit{Redhead}, 686 F.2d at 182.

\textsuperscript{194} Commentators disagree as to the extent to which tort law should be concerned with the social engineering of safety. At one end of the spectrum is Posner who “fully accepts the premise that the main function of liability is to regulate safety . . . .” Englard, \textit{The System Builders: A Critical Appraisal of Modern American Tort Theory}, 9 J. LEGAL STUD. 27, 51 (1980). At the other end is Englard who prefers a strict compensatory approach. “From [an] overall accident-prevention point of view, deterrence, be it specific or general, is of only very limited significance. . . . Compensatory concerns should prevail, assuming the absence of a full social in-
ment employees are negligent in providing aviation-related services to the public, litigation should result not only in fair compensation to injured parties but also in a re-examination of the procedures that led to the injury. The potential for liability should encourage the government to provide the safest possible level of service. The use of FAA safety procedures as the standard of care against which the actions of air traffic controllers are evaluated has several implications regarding this goal of promoting safety.

On the positive side, the use of FAA developed procedures as the standard against which controller conduct is measured is more efficient than relying upon judicial formulations of the standard of care, especially in light of the variety of complicated factual problems which are the subject of litigation. Air traffic control is a technical and complicated undertaking. The FAA has the specialized resources and experience necessary to evaluate alternative safety measures. Additionally, the FAA has a singularity of purpose which allows them to stay abreast of technological developments. The judiciary lacks comparable technical resources and does not have consistent contact with aviation issues.

insurance scheme.” Id. at 69. Between these extremes are those who feel tort law is properly focused when balancing the concerns of compensation and deterrence. “Calabresi’s . . . critical analysis assumes four goals or functions of accident law: two compensatory—spreading of losses and distributional equity—and two deterrent—specific and general deterrence.” Id. at 47. The majority of commentators would probably agree that the regulation of safety is an appropriate concern for the tort system since “[t]he ‘prophylactic’ factor of preventing future harm has been quite important in the field of torts.” Prosser, supra note 50, § 4.

See Morris, The Role of Administrative Safety Measures in Negligence Actions, 28 Tex. L. Rev. 143 (1949). “[A]dministrative judgment is usually an acceptable and valuable source of concrete standards defining negligence and due care and . . . the use of such standards can promote efficiency and justice in the trial of damage suits.” Id. at 166; P. Huber, Liability 215 (1988). “Regulators, quite simply are better equipped than any [fact finder] to make the systematic risk comparisons on which all progressive choice is based.” Id.

External factors, however, may detrimentally influence the regulatory process. For example, well-organized special interest groups, sponsored by businesses, may exert pressure on the regulators. Moreover, regulated entities that control the flow of information can effectively hinder regulators by withholding critical data. See Sykes, Reformulating Tort Reform, 56 U. Chi. L. Rev. 1153, 1168 (1989).
The problem with using FAA procedures as the standard of care is that the agency then becomes both the source and the object of regulation. Government agencies that regulate power plants, drugs, pesticides and worker safety standards, for example, are not in the business of providing the products or services they regulate. The same is true of the FAA when it establishes, for instance, certification standards for aircraft manufacturers. As to air traffic control services, however, the FAA is both establishing the standard and being judged by it.

The FAA, therefore, is faced with conflicting incentives. The FAA is predisposed to developing rigorous procedures in an attempt to keep the flying public safe. But if these same procedures establish the FAA's legal standard of care, rigorous procedures increase the likelihood of legal liability. The FAA's incentive to develop rigorous procedures is offset by the inclination to avoid legal liability. If possible, the courts should structure decisions in aviation tort cases to ameliorate this tension.

Past decisions apparently have not provided the necessary impetus for the FAA to sufficiently refine its procedures. As the *Dallas Morning News* reporter observed, it appears the FAA designs procedures to keep controller responsibility and FAA liability to a minimum. The current state of the ATCM illustrates the problem. Although some sections in the ATCM are very detailed, others are overly general. Furthermore, many air traffic controller services are provided on a discretionary basis.

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196 See Wilson v. Piper Aircraft Corp., 577 P.2d 1322, 1333 (Or. 1978). "The FAA not only sets detailed performance standards for the operational aspects of [aircraft] design, it also requires that the design be tested for compliance with these standards by the producer and ultimately by the agency itself before a certificate is issued." *Id.* (Linde, J., concurring).

197 *Hanners, supra* note 1, at 12, col. 1. See text accompanying *supra* note 5.

198 For an example of the specificity of some provisions of the ATCM, consider section 9-17 on Emergency Assistance, titled Information to be Forwarded to RCC (Rescue Coordination Center), which provides: When an aircraft is considered to be overdue or in emergency status, alert the RCC and forward the following information as available:

a. Facility and person calling.

b. Flight plan, including color of aircraft if known.
Section 2-2(a) of the manual appropriately establishes that the controller's primary duty is the separation of aircraft.\(^{199}\) Other provisions of the handbook are to be given

c. Time of last transmission received, by whom, and frequency used.
d. Last position report and how determined.
e. Action taken by reporting facility and proposed action.
f. Number of persons on board.
g. Fuel status.
h. Facility working aircraft and frequency.
i. Last known position, estimated present position, and maximum range of flight of the aircraft based on remaining fuel and airspeed.
j. Position of other aircraft near aircraft's route of flight when requested.
k. Whether or not an ELT [emergency locator transmitter] signal has been heard or reported in the vicinity of the last known position.
l. Other pertinent information.

ATCM, supra note 53, § 9-17.

For an example of the generality of some provisions of the ATCM, consider the section concerning general control, section 2-7, In-Flight Equipment Malfunction, which provides:

(a) When a pilot reports an in-flight equipment malfunction, determine the nature and extent of any special handling desired.
(b) Provide the maximum assistance possible consistent with equipment, workload, and any special handling requested.
(c) Relay to other controllers or facilities who will subsequently handle the aircraft all pertinent details concerning the aircraft and any special handling required or being provided.

Id. § 2-7 (§ 2-7(a) note on pilot reports to air traffic controller concerning loss of navigation or communication capability omitted).

\(^{199}\) ATCM, supra note 53, § 2-1 note 2-2b. The primary duty of the air traffic controller is separation of aircraft because the primary purpose of the air traffic control system "is to prevent a collision between aircraft operating in the system . . . ." Id.

Separation of aircraft refers to the process of maintaining a buffer of airspace between aircraft for safety reasons. The most important function of the buffer is to prevent mid-air collisions. Several factors enter into the consideration of proper spacing including aircraft size, speed, technical capabilities and the possibility of unexpected emergency maneuvering. See generally Trick, supra note 82, at 50. Trick explains the importance of separation as follows:

The speed of the various types of aircraft presents one of the most difficult problems that an approach controller can face. Those of you who have sat outside an airport watching an unbroken string of perfectly spaced airplanes make their approach should stop and consider the degree of skill required to obtain that kind of precision. The air traffic controller must not only turn the aircraft to final position at the precise moment, but must also balance the turn on spacing in relation to the speed that the various aircraft can maintain on
priority based upon the controller's "good judgment."²⁰⁰ Services other than separation, such as the provision of weather information, are provided to the extent possible and contingent upon other factors.²⁰¹ Although the provision of these additional services is not optional, they are required only when the work situation permits.²⁰²

The ATCM's elective standard for providing such important services sometimes results in the implementation of procedures that fail to afford pilots an adequate level of service. For example, in an April, 1986 report, the General Accounting Office (GAO) reported that procedural problems contribute to a lack of timely dissemination of the final approach. That beautiful chain of airplanes did not happen by accident.

Id.

Air turbulence is an important consideration when separating aircraft. See Apostol v. United States, 838 F.2d 595, 597 (1st Cir. 1988). All planes create a "wake" of air currents which results from disruption of the air mass as the plane passes through the air. The concept is very similar to the wake left in water behind a boat. Air turbulence dissipates over time but the wake of a large jet can create a particularly dangerous environment for a small aircraft following close behind. Id.; see also ATCM, supra note 53 §§ 2-19 (wake turbulence) and 2-20 (wake turbulence and cautionary advisories).

²⁰⁰ ATCM, supra note 53, § 2-2(a). "Give first priority to separating aircraft and issuing safety alerts as required in this handbook. Good judgment shall be used in prioritizing all other provisions of this handbook based on the requirements of the situation at hand." Id. Additionally, the foreword to the ATCM indicates "[c]ontrollers are required to be familiar with the provisions of this handbook that pertain to their operational responsibilities and to exercise their best judgment if they encounter situations not covered by it." Id. at foreword (emphasis added).

²⁰¹ ATCM, supra note 53, § 2-2(b). The other factors include "volume of traffic, frequency congestion, quality of radar, controller workload, higher priority duties, and the pure physical inability to scan and detect those situations that fall in this category." Id.

²⁰² Id. § 2-2. The ATCM even carries a disclaimer of sorts, which attests to the difficulty in defining a set of explicit procedures to address the multitude of situations which might confront a controller. Id. § 2-2(a). Section 2-2(a) states:

Because there are many variables involved, it is virtually impossible to develop a standard list of duty priorities that would apply uniformly to every conceivable situation. Each set of circumstances must be evaluated on its own merit, and when more than one action is required, the controller shall exercise his best judgment based on the facts and circumstances known to him. That action which is most critical from a safety standpoint is performed first.

Id.
weather information.\textsuperscript{203} The GAO found that weather warnings were often delayed, and sometimes never delivered, because of the controllers’ procedure of passing weather messages from one controller to another.\textsuperscript{204} The average time taken to disseminate weather advisories at D/FW Airport was measured at twenty-three minutes.\textsuperscript{205} The existence of these ineffectual practices illustrates the need to encourage the FAA to refine its procedures. Structured correctly, court decisions could provide the necessary encouragement.

The use of a negligence per se standard for the violation of air traffic control procedures does not provide the proper incentive. Paradoxically, while detailed and demanding procedures promote safety, they also increase the likelihood that a court will find a procedural violation. Therefore, under a negligence per se standard, it is not in the FAA’s best interest, at least from a liability standpoint, to develop detailed procedures. Alternatively, if the FAA knows that courts will apply a prima facie negligence standard, the FAA would not be deterred from developing more stringent procedures. The FAA could find security


\textsuperscript{204} Id.

\textsuperscript{205} Id. (parenthetical information added)

\textsuperscript{206} Id. “This average consisted of the elapsed time between the first and last reading of each weather warning. Dallas/Ft. Worth data were a result of a facility order creating a special recording form following the Delta Air Lines accident last August [1985].” Id.
in the knowledge that tort principles would not require the courts to impose liability as a matter of law for every deviation from the prescribed procedures. Instead, the courts could account for any circumstantial complexities in making the determination of liability.

In cases where a factual determination reveals compliance with FAA procedures, overall safety is better served when courts do not apply a standard of due care per se. Because the due care per se rule precludes liability if the government complies with administrative procedures, the government can in effect shield itself from liability by imposing vague standards. Conversely, under a prima facie due care standard, adherence to established procedures would not guarantee a finding of no liability. While controllers undoubtedly have the best interests of public safety in mind regardless of the legal standard imposed, a prima facie due care standard would nevertheless serve to reinforce the notion that controllers take all steps possible to ensure safety.

The best course of action is for courts to approach the analysis in a fact-specific way, avoiding conclusive liability when procedures have been violated, or conclusive exoneration when procedures have been followed. If, under existing state law precedent, courts feel bound to apply a per se standard to the violation of an administrative regulation, two alternative approaches are available.

First, courts could abandon the notion that FAA procedure manuals rise to the level of statutes or regulations. The manuals are simply procedures established by a regulatory agency; they are not regulations and the courts are not required to treat them as having the authority of regulations. Courts could continue to rely on the manuals for guidance on reasonable conduct, without being bound to

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206 "When defendants attempt to establish conformity to administrative regulation as proof of due care, courts are likely to confuse administrative inaction with administrative judgment ..." See Morris, supra note 195, at 167.

207 See supra notes 65-69 and accompanying text for a discussion of how the ATCM is sometimes seen as having the force and effect of law.
reach a particular result once the evidence shows that the procedures either were or were not violated.

Secondly, courts could abandon the administrative standard of care altogether in favor of a common law standard of care. As indicated previously, common law theories exist to evaluate the controller’s level of care. Under either the voluntary undertaking theory\(^{208}\) or pilot reliance theory\(^{209}\), courts have a basis for establishing a common law duty of care. The court could then achieve the same goal of promoting safety by evaluating controller conduct in light of the fact specific reasonable man standard, rather than the administrative regulation standard.\(^{210}\)

V. Conclusion

Given the magnitude and complexity of the aviation system in the United States, accidents are probably inevitable. Accidents are caused by a variety of factors, including weather and human and machine limitations. The courts have no control over most of these factors. But courts do have some influence over one factor which contributes to the safety of the system: air traffic control procedures. The procedures followed by federal air traffic controllers affect the quality and quantity of service which pilots receive at most large airports. Judges indirectly influence the development and refinement of those procedures when the procedures are used as the standard of care in tort actions against the government for the negligence of air traffic controllers.

\(^{208}\) See supra notes 117-139 and accompanying text for a discussion of air traffic controller duty based on voluntary undertaking.

\(^{209}\) See supra notes 140-150 and accompanying text for a discussion of air traffic controller duty based on pilot reliance.

\(^{210}\) See Morris, supra note 195, at 166-67. "When affirmative grounds appear for questioning the suitability of administrative judgment as a criterion of due care, then the negligence issue should be tried by the reasonably-prudent-man standard. Such grounds may inhere in the nature of the standard, or the circumstances of the particular case, or in the unsoundness of the administrator’s judgment." Id.
The FAA has the difficult task of trying to define air traffic control procedures to provide an optimum level of service while knowing that the courts may use the procedures as the standard of conduct for the evaluation of controller fault. Courts can relieve this pressure by abandoning a per se approach to controller liability in favor of a fact-specific approach. Structured correctly, judicial decisions can exploit the special resources of the FAA by relying on FAA-developed procedures for guidance in evaluating controller conduct, without deterring the FAA from developing the most rigorous and effective procedures possible.