

No. 16-323

In the Supreme Court of the United States

AVCO CORPORATION, PETITIONER

v.

JILL SIKKELEE

*On Petition for a Writ of Certiorari to the United
States Court of Appeals for the Third Circuit*

**BRIEF FOR AIRCRAFT OWNERS AND
PILOTS ASSOCIATION AS *AMICUS CURIAE*
IN SUPPORT OF PETITIONER**

KENNETH MEAD
Counsel of Record
JUSTIN T. BARKOWSKI
AIRCRAFT OWNERS AND
PILOTS ASSOCIATION
*421 Aviation Way
Frederick, MD 21701
(301) 695-2018
ken.mead@aopa.org*

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INTEREST OF THE AMICUS CURIAE

The Aircraft Owners and Pilots Association (AOPA), the world’s largest aviation membership association, is a nonprofit trade association that represents the interests of general aviation pilots and aircraft owners.¹ AOPA represents over 300,000 members, consisting primarily of aircraft owners and pilots. AOPA’s central mission is preserving the freedom to fly and ensuring general aviation remains accessible. AOPA advocates on behalf of its members before Congress, the Federal Aviation Administration (FAA), federal agencies, and state and local governments, educating politicians and policymakers on issues impacting its members and the entire general aviation industry.

In this case, the Third Circuit held that the Federal Aviation Act of 1958 does not preempt the state-law standard of care in aviation products liability actions. The holding was a departure from the decision in *Abdullah v. American Airlines, Inc.*, 181 F.3d 363, 365 (3d Cir. 1999), in which the Third Circuit held the Act preempted the “entire field of aviation safety.” In *Sikkelee v. Precision Airmotive Corp.*, 822 F.3d 680, 688–89 (3d Cir. 2016), the Third Circuit held that the preempted field of aviation safety does not include aircraft design.

¹ No counsel for a party authored this brief in whole or in part, and no counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than *amicus curiae*, its members, or its counsel made a monetary contribution to its preparation or submission. Counsel of record for all parties received notice at least 10 days prior to the due date of the *amicus curiae*’s intention to file this brief. The parties have consented to the filing of this brief.

This case presents an important question about the states' role in ensuring continued operational safety of aircraft approved by the FAA. As owners and pilots, AOPA members have a substantial interest in the duties imposed upon manufacturers to address unsafe conditions in FAA-approved designs. These duties significantly affect the safety of existing aircraft and future aircraft produced in accordance with that design. Additionally, the cumulative cost effect of aviation products liability actions on manufacturers is passed onto aircraft owners. Thus, state-law duties defined in an aviation products liability action affect the cost of purchasing new and maintaining existing aircraft.

AOPA members, as aggrieved parties, are entitled to compensation if their injuries result from a manufacturer's defective product. Accordingly, AOPA has significant interest in the appropriate standard of care for determining when such a defect exists. Based on its broad membership of general aviation consumers and experience, AOPA can provide unique and significant guidance to the Court about this complex and pervasive regulatory arena and the implications of the Third Circuit's decision.

SUMMARY OF THE ARGUMENT

This case presents an important question over the states' role in ensuring the continued operational safety of aircraft approved by the FAA. In accordance with the Federal Aviation Act, the FAA exercises broad authority in this field, specifically, to promulgate aircraft design standards, approve the initial design of an aircraft or component part, approve any later changes in the initial design, continually monitor and analyze potential safety hazards in FAA-

approved products, determine whether such hazards rise to the level of an unsafe condition, and mandate any corrective action deemed necessary to eliminate the unsafe condition. Such corrective action may include requiring a manufacturer to submit proposed changes to its original, FAA-approved design for the FAA's evaluation and approval.

In contrast, states permit aggrieved parties to retrospectively analyze an FAA-approved aircraft design for potential defective conditions using state-design standards. These aviation products liability actions result in the imposition of state-law duties which interfere and conflict with federal control of aviation products and continued operational safety. Manufacturer compliance with these variable state-law duties is practically impossible because the federal regulatory scheme requires approval from the FAA to change an approved aircraft design. And allowing a lay jury to retroactively impose state-law duties, in a field where it has no authority, has negatively impacted, and continues to threaten, the affordability and safety of general aviation.

In enacting the Federal Aviation Act, Congress's intent was to create a uniform and exclusive system of federal regulation in the field of air safety and preserve state tort remedies for violations of a federal standard of care. Federal preemption of state-design standards is consistent with Congress's vision for uniformity in air safety standards and necessary for continued operational safety of approved aircraft.

ARGUMENT

I. STATE-DESIGN STANDARDS ARE PREEMPTED IN AVIATION PRODUCTS LIABILITY ACTIONS.

A. Products liability actions are a retrospective analysis of an FAA-approved design.

Common law products liability actions amount to state “regulation” of an aircraft manufacturer’s original design which the FAA approved. Generally, the FAA utilizes a three-part process for approving a manufacturer’s initial design and production of an aircraft. First, the manufacturer must obtain a type certificate which signifies that the FAA determined the aircraft design, or type design, to comply with the applicable regulations, including airworthiness standards. 49 U.S.C. § 44704(a); 14 C.F.R. § 21.21. In this case, the FAA-approved type design consists of detailed drawings and specifications for the configuration and design of the O-320-D2C engine, including the MA-4SPA carburetor, involved in the subject accident. *See* 14 C.F.R. § 21.31. Second, the manufacturer must acquire a production certificate, which assures the FAA that each aircraft produced will be manufactured in accordance with the approved type design. 49 U.S.C. § 44704(c); 14 C.F.R. § 21.145. Third, the FAA issues the aircraft owner an airworthiness certificate upon finding that the aircraft conforms to the type certificate and is in condition for safe operation. 49 U.S.C. § 44704(d). Thus, certain FAA requirements are imposed to establish the safe design and manufacture of an aircraft *before* it can be legally operated.

The fundamental aspect of any aviation products liability action is the retrospective analysis of an

FAA-approved aircraft design after an accident causing damages. For strict liability claims, most American states utilize the risk-utility standard to determine the existence of a design defect in an aircraft or component part. *See, e.g., Tincher v. Omega Flex, Inc.*, 628 Pa. 296, 397 (2014). The risk-utility standard requires finding a defective condition exists, generally, “if a ‘reasonable person’ would conclude that the probability and seriousness of harm caused by the product outweigh the burden or costs of taking precautions.” *Id.* For negligence claims, the jury typically considers expert testimony as to the applicable standard of care for the design of the aircraft or component part, and as to whether that standard has been breached. *See, e.g., Salerno v. Innovative Surveillance Tech., Inc.*, 402 Ill.App.3d 490, 501 (2010) (“Because products liability actions involve specialized knowledge or expertise outside of a layman’s knowledge, the plaintiff must provide expert testimony on the standard of care and a deviation from that standard to establish either of these propositions.”).

States have de facto permitted aggrieved parties to analyze an aircraft or component part design, using state-design standards, to determine the existence of a defective condition. But the analysis may only occur after the FAA has approved the product design and a potential design defect has been identified. To assess plaintiffs’ claims, experts and the jury may consider evidence after manufacturing and through the time of the accident. *See Croskey v. BMW of N. Am., Inc.*, 532 F.3d 511, 519 (6th Cir. 2008) (“The district court . . . excluded any introduction of ‘post-manufacture’ evidence to show design defect. This was error.”). In short, the jury is analyz-

ing the service life of the aircraft or component part, among other things, to determine whether there was a defect in the original type design approved by the FAA; that is, after the FAA determined the requisite safety standards had been met.

This Court has held that common-law damages actions are premised on the existence of a legal duty, and therefore impose “requirements or prohibitions” on the alleged tortfeasor. *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504, 522 (1992); *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 510 (1996) (“[S]tate common-law damages actions operate to require manufacturers to comply with common-law duties.”). This Court also held that the phrase “state law” includes “common law as well as statutes and regulations.” *Cipollone*, 505 U.S. at 522. There is no dispute that common law products liability actions amount to affirmative “regulation” that impose certain state-law duties upon an aircraft manufacturer. *Id.*; *Riegel v. Medtronic, Inc.*, 552 U.S. 312, 328–29 (2008) (“General tort duties of care, unlike fire codes or restrictions on trade practices, ‘directly regulate’ the device itself, including its design.”). If liability is imposed by a jury, the manufacturer must comply with its state-law duties by modifying its design to eliminate the defective condition. *See id.* If a manufacturer chooses to not modify the design, the manufacturer is not relieved of the duty, but instead risks further liability in subsequent lawsuits. And in either case, it would be impossible for the manufacturer to know the state-design standard until after the jury verdict.

B. The FAA’s regulatory scheme for ensuring continued operational safety of approved aircraft preempts state-design standards.

1. Under the Supremacy Clause of the U.S. Constitution, federal law impliedly preempts state law or regulation where “the pervasiveness of the federal regulation precludes supplementation by the States, [or] where the federal interest in the field is sufficiently dominant.” *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 300 (1988); U.S. Const., art. VI, cl. 2. Since Congress enacted the Air Commerce Act of 1926 (1926 Act), Pub. L. No. 69-254, 44 Stat. 568, and provided for the regulation of civil aviation, the federal government has developed a pervasive regulatory scheme and system for ensuring continued operational safety of approved aircraft.

a. Under the authority of the 1926 Act, the Bureau of Air Commerce was permitted to revoke or suspend any type certificate “in the event of unsatisfactory or unsafe performance in service of aircraft, engines, propellers or other aeronautical equipment” covered within a type certificate. 14 C.F.R. § 01.470 (1938); Pub. L. No. 69-254, § 2(f), 44 Stat. 568, 570.

During the 1940s the Civil Aeronautics Administration (CAA) took an increasingly active role in addressing unsafe conditions in aircraft which arose after type certificate issuance and during service. The CAA continually studied the “service experience” of approved aircraft to determine if, based upon that experience, changes to the type design were necessary. 14 C.F.R. § 03.0342 (1945 Supp.); 11 Fed. Reg. 409, 410 (Jan. 9, 1946). If changes were necessary, the type certificate holder had to provide the CAA

with engineering data to describe and substantiate changes in the aircraft's design to eliminate the unsafe condition. *Id.* The CAA would also issue an airworthiness directive (AD), a legally enforceable, mandatory order requiring modifications and inspections before the owner or operator could fly the aircraft. 15 Fed. Reg. 3872, 3872 (June 17, 1950); 15 Fed. Reg. 3543, 3547 (June 8, 1950). This general framework existed until Congress enacted the Federal Aviation Act of 1958 (1958 Act), Pub. L. No. 85-726, 72 Stat. 731, which remains in effect today. *See* 14 C.F.R. §§ 1.24, 507.1 (1960 Cum. Supp.)

b. The 1958 Act requires the FAA to “promote safe flight of civil aircraft in air commerce” by prescribing “minimum standards required in the interest of safety for appliances and for the design, material, construction, quality of work, and performance of aircraft, aircraft engines, and propellers.” 49 U.S.C. § 44701(a). However, the FAA has additional authority for retroactively analyzing an approved type design and requiring changes in the interest of safety. To wit, Congress delegated to the FAA the authority to reinspect and reexamine, at any time, a civil aircraft, aircraft engine, propeller, or any other appliance. 49 U.S.C. § 44709(a). To carry out its duties with respect to aviation safety, the FAA may conduct any necessary investigations and prescribe regulations, standards, among other things. 49 U.S.C. § 40113(a).

With this broad authority, the FAA implemented the current AD system to address unsafe conditions arising in an aircraft—whether through defects in design, production, or wherever—after the original type certificate has been issued. 14 C.F.R. §§ 21.3,

21.99, 39.1–39.27. The FAA issues an AD for an aircraft, aircraft engine, propeller, or appliance when the FAA finds an “unsafe condition” exists and the “condition is likely to exist or develop in other products of the same type design.” 14 C.F.R. § 39.5. ADs specify inspections the aircraft owner or operator is required to carry out, conditions and limitations to comply with, and any other actions the FAA determines must be taken to resolve the unsafe condition in the existing fleet. 14 C.F.R. § 39.11. ADs are legally enforceable rules applicable to any aircraft, engine, propeller, or other appliance. 14 C.F.R. §§ 39.3, 39.7. Once an AD has been issued, the FAA decides whether it is necessary to require the type certificate holder to change its type design to address the unsafe condition for any *future* aircraft produced under the type certificate. 14 C.F.R. § 21.99. If a design change is necessary, the type certificate holder still must submit proposed design changes to the FAA for evaluation and approval. *Id.*

After the 1958 Act went into effect, the FAA explained the current definition of “unsafe condition,” carefully noting its extremely broad authority to address *any* defect arising in the field: “It is clear from the foregoing discussion that the responsibilities placed on the FAA by the Federal Aviation Act justify broadening the regulation to make any unsafe condition, whether resulting from maintenance, design defect, or otherwise, the proper subject of an AD.” 30 Fed. Reg. 8826, 8826 (July 14, 1965). During non-substantive revisions of part 39 (Airworthiness Directives), the FAA reiterated: “As under the former provisions in part 39, FAA intends to retain broad authority to require whatever types of corrective actions we determine to be most effective in addressing

identified unsafe conditions. This includes inspections, repairs, modifications, operating limitations, airworthiness limitations, and maintenance program requirements.” 67 Fed. Reg. 47998, 48000 (July 22, 2002).

c. The FAA utilizes the Monitor Safety/Analyze Data (MSAD) process to track and assess in-service fleet data on aviation products to determine if an “unsafe condition” exists. *See generally* FAA Order 8110.107A, at 1. The FAA requires manufacturers to report to the FAA any failure, malfunction, or defect which has resulted or could result in certain safety-threatening occurrences. 14 C.F.R. §§ 21.3, 183.63. During the MSAD process, the FAA conducts a risk analysis using these reports and other data from its internal databases. FAA Order 8110.107A, at 3, 8. This analysis requires an FAA engineer to “objectively characterize[] hazards for probabilities and severity, and determine[] the risk posed by each hazard associated with a given safety issue.” *Id.* at 8. Focusing on the probability and severity of a potential outcome from each safety hazard allows the FAA to assess the overall risk to an individual aircraft or person. *Id.* at 8–13. The risk analysis process is followed by a causal analysis and the evaluation and selection of a corrective action, whether by AD or other non-mandatory action. *Id.* at 15–22. The FAA is required to evaluate effectiveness, cost, timeliness of implementation, and complexity when selecting a proper corrective action. *Id.* at 21.

Issuance of an AD as a corrective action requires the FAA to initiate a rulemaking project for the directive to become legally binding. 14 C.F.R. § 39.13. This rulemaking process allows industry stakehold-

ers, including aircraft owners, pilots, product manufacturers, and others to comment on the proposed corrective action. 14 C.F.R. § 11.5. The comment period enables the entire industry to opine on the FAA’s risk analysis and the adequacy or burden of the proposed actions required. In short, the FAA established the AD system to encourage stakeholder input and create a national, uniform system to address unsafe conditions in approved aircraft. The imposition of state-design standards does not allow for stakeholder input and does not consider the economic and safety effects on general aviation.

d. The FAA occupies the entire field of continued operational safety of approved aircraft. *Oneok, Inc. v. Learjet, Inc.*, 135 S.Ct. 1591, 1595 (2015) (“Congress may have intended ‘to foreclose any state regulation in the *area*,’ irrespective of whether state law is consistent or inconsistent with ‘federal standards.’”). Immediately upon approving the design and production of aircraft or component parts, the FAA implements an extremely technical MSAD process to detect when certain safety hazards rise to an “unsafe condition.” See FAA Order 8110.107A. The FAA has the mandate to ensure continued safety and the authority to require any form of corrective action to ensure the unsafe condition is eliminated. 14 C.F.R. §§ 21.99, 39.11. This includes implementing corrective action for both the existing aircraft in service and any future aircraft produced under the type certificate. *Id.* The FAA’s regulatory scheme is pervasive and establishes the manufacturer’s federal-law duties for addressing unsafe conditions in an original type design.

In contrast, aviation products liability actions allow a jury or expert witness to opine on the existence of any defects in an FAA-approved design using state-design standards. If the jury renders a verdict, this results in an imposition of state-law duties on a manufacturer in an area pervasively occupied by the federal government. Specifically, the role of determining when and how an unsafe condition must be eliminated—the field of continued operational safety—is occupied by the FAA. National uniformity in aviation design standards is necessary for the safety and affordability of general aviation aircraft. There is no room for state supplementation. Consequently, a lay jury has no authority to impose state-law duties upon a manufacturer.

2. State-law duties stand as an obstacle to the FAA’s pervasive responsibility for ensuring continued operational safety, a scheme developed under authority from Congress. 49 U.S.C. §§ 44709(a), 40113(a); 14 C.F.R. §§ 39.1–39.27; *Crosby v. Nat’l Foreign Trade Council*, 530 U.S. 363, 372–73 (2000) (holding preemption exists where the state law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress”). Indeed, a lay jury evaluation of an approved aircraft or component part design for unsafe conditions will always conflict with a separate, technical evaluation undertaken by the FAA. Each process is subjective in nature and there are inherent differences in the technical competency of the evaluators; scope, circumstances, or nature of the evidence considered; and risk factors considered. Two separate governmental bodies or forums evaluating an FAA-approved design naturally imposes diverging and conflicting duties of care upon a manufacturer. Such

conflicts frustrate Congress's objective of creating a "uniform and exclusive system of federal regulation' in the field of air safety." *US Airways, Inc. v. O'Donnell*, 627 F.3d 1318, 1326 (10th Cir. 2010) (quoting *City of Burbank v. Lockheed Air Terminal Inc.*, 411 U.S. 624, 639 (1973)).

A single body, the FAA, must set the standards, as Congress intended. *See* 49 U.S.C. §§ 44709(a), 40113(a). Allowing expert witnesses and juries to utilize state-design standards in assessing an aircraft design is irreconcilable with the 1958 Act and the FAA's scheme for ensuring continued operational safety of approved aircraft. The determination of any necessary design changes and corrective action for an aircraft or component part design belongs in the hands of the FAA, with input from industry stakeholders, not expert witnesses and state juries. Indeed, end consumers have come to appreciate the rigor and technical sophistication of the FAA's safety standards that cannot be matched by a lay jury in an aviation products liability action.

C. The FAA's process for modifying an approved design preempts state-design standards.

1. The FAA's pervasive process for enabling changes to an approved design prevents manufacturers from ever complying with state-law duties. *Schneidewind*, 485 U.S. at 300. After a manufacturer obtains initial approval of its type design from the FAA, the FAA has absolute discretion on whether to approve any subsequent, voluntary changes to that design. Indeed, a type certificate holder is required to obtain FAA approval for every change to the type design covered under that certificate. The FAA catego-

rizes a change in type design as either major or minor. 14 C.F.R. § 21.93(a). A “minor change” is one that “has no appreciable effect on the weight, balance, structural strength, reliability, operational characteristics, or other characteristics affecting the airworthiness of the product.” *Id.* Any other change constitutes a “major change” to the type design. *Id.*

In both cases, the FAA must approve the change—the only difference is the amount of substantiating or descriptive data the type certificate holder must provide to the FAA. FAA Order 8110.4C (CHG1), at 87. Minor changes can be approved under a method “acceptable” to the FAA. 14 C.F.R. § 21.95. For major changes, the manufacturer must provide the FAA with substantiating data and demonstrate that the areas affected by the change comply with the applicable airworthiness standards promulgated by the FAA. 14 C.F.R. §§ 21.97(a), 21.101. Any manufacturer seeking to make a major change to its type design must apply for a supplemental type certificate. 14 C.F.R. § 21.113. In some cases, the significance of the changes may require the manufacturer to obtain an entirely new type certificate. 14 C.F.R. § 21.19.

In this case, the Third Circuit acknowledged that the FAA’s approval process for type certification, including any changes thereto, means a manufacturer may find it “impossible to simultaneously comply with both a type certificate’s specifications and a separate—and perhaps more stringent—state tort duty.” *Sikkelee v. Precision Airmotive Corp.*, 822 F.3d 680, 702–04 (3d Cir. 2016). The Third Circuit concluded:

“For, even if an alternative design aspect would improve safety, the mere ‘possibility’ that the FAA would approve a hypothetical application for an alteration does not make it possible to comply with both federal and state requirements: As the Supreme Court observed in *PLIVA*, if that were enough, conflict preemption would be ‘all but meaningless.’”

Id. at 704. Similarly, the Supreme Court noted that “when a party cannot satisfy its state duties without the Federal Government’s special permission and assistance, which is dependent on the exercise of judgment by a federal agency, that party cannot independently satisfy those state duties for pre-emption purposes.” *PLIVA, Inc. v. Mensing*, 564 U.S. 604, 623–24 (2011); *Crosby*, 530 U.S. at 372–73 (noting preemption occurs “where it is impossible for a private party to comply with both state and federal law”).

2. The field of aircraft design is unique because the federal framework requires manufacturers to obtain approval for any subsequent change after the FAA approves the initial design, regardless of whether the change constitutes major or minor. 14 C.F.R. §§ 21.95, 21.97(a), 21.101. At the same time, a manufacturer is economically and legally pressured to comply with its state-law duty after an aviation products liability action and conform its previously approved design to state-design standards. Otherwise, the manufacturer is exposed to the risk of similar claims and liability in the future.

Both the Third Circuit and this Court have acknowledged that if compliance with a state-law duty requires federal approval, then the state-law duty

is impliedly preempted. *PLIVA, Inc.*, 564 U.S. at 617–18; *Sikkelee*, 822 F.3d at 704. As noted by the Third Circuit, the “mere ‘possibility’” the FAA approves the proposed change does not make it possible for the manufacturer to comply with both its state-law duty and federal-law duty. *Sikkelee*, 822 F.3d at 704. However, the FAA’s approval process is so comprehensive that compliance with state-law duties will *always* require federal permission. As a result, the FAA occupies the field of approving changes to an approved design, impliedly preempting state-law duties in aviation products liability actions.

3. Moreover, aircraft manufacturers are exposed to aviation products liability actions in all U.S. jurisdictions. Manufacturers are thus subject to an unlimited number of state-design standards because those standards may vary from case to case within the same jurisdiction and could conflict with one another. Even if the FAA did not require approval for changes in type design or did not approve an individual state-required change, the manufacturer would still be in an impossible position trying to satisfy numerous state-law duties which may conflict with one another.

Allowing both the FAA and tort actions to impose design standards on aircraft manufacturers prevents uniformity and frustrates the intent of Congress. *City of Burbank v. Lockheed Air Terminal Inc.*, 411 U.S. 624, 639 (1973). Manufacturers also absorb those liability costs, pass them along to the end consumer, and are deterred from introducing new aircraft into the market. Eventually manufacturers may decide to withdraw from the industry and stop supporting its existing products. This would increase

costs for aircraft owners, who would either abandon flying or continue operating aircraft with unsupported equipment, decreasing safety and reliability. As such, permitting a jury or expert witness to influence the standard of care in aircraft design has, and will continue to, negatively impact the cost and safety of general aviation. Aircraft owners and pilots need a single body determining the design standards for an aircraft and, as a corollary, the obligations for ensuring continued operational safety of approved designs.

II. THE COURT OF APPEALS ERRED IN NARROWING THE FIELD OF AVIATION SAFETY.

1. The Third Circuit in *Abdullah v. American Airlines, Inc.*, 181 F.3d 363, 367 (1999), held that federal law established “the applicable standards of care in the field of air safety, generally, thus preempting the entire field from state and territorial regulation.” In this case, the Third Circuit restricted the scope of *Abdullah* by holding that the 1958 Act does not preempt the entire field of aviation safety, but instead only preempts the limited field of “in-air operations.” *Sikkelee*, 822 F.3d at 688–89. By holding the 1958 Act only preempts the limited field of aviation safety of “in-air operations,” the Third Circuit drew an arbitrary and impracticable distinction between in-air operations and non-in-air operations.

The Third Circuit described the field of “in-air operations” as including “regulations governing pilot certification, pilot pre-flight duties, pilot flight responsibilities, and flight rules discussed there,” but excluding the area of aircraft design. *Sikkelee*, 822 F.3d at 688–89. The error in this analysis is that the regulations governing pilot pre-flight duties, pilot

flight responsibilities, and flight rules are highly dependent upon the design of the aircraft being operated, and part of a uniform system created and controlled by the FAA.

The FAA and manufacturers define certain pilot responsibilities for aircraft operation during the design and certification process. For example, under 14 C.F.R. § 23.1581, airplane manufacturers are required to prepare and furnish an FAA-approved Airplane Flight Manual (AFM) which meets requirements set by the FAA. The AFM must contain an “operating limitations” section which outlines detailed parameters for operating that airplane, including, among other things, airspeed limitations, powerplant limitations, maximum weights, allowable maneuvers, flight crew and passenger limitations, maximum load factors, altitude restrictions, maximum cargo loading, and restrictions on fueling. *See* 14 C.F.R. § 23.1583. These limitations must also be included in the FAA-approved type certificate. 14 C.F.R. § 21.41. The AFM establishes a fundamental regulatory obligation for pilots: an airplane must be operated within the operating limitations established by the manufacturer and approved by the FAA. 14 C.F.R. § 91.9(a). Pilots are also required to familiarize themselves with aircraft performance data, and takeoff and landing data found in the AFM before each flight. 14 C.F.R. § 91.103.

The FAA requires an aircraft to be equipped with various instruments and equipment depending upon the intended operating environment. Any aircraft operating in the national airspace system must comply with either the visual flight rules (VFR) or instrument flight rules (IFR). *See* 14 C.F.R. § 91.155.

The FAA identifies the equipment necessary to operate under VFR, VFR (night), or IFR, and when operating above certain altitudes or in specified airspace. *See* 14 C.F.R. §§ 91.205, 91.209, 91.211, 91.215, 91.225. Additional equipment requirements exist for large and transport-category aircraft. 14 C.F.R. §§ 91.601–91.613. In short, a pilot must ensure the aircraft is equipped with the required instruments and equipment before operating in an environment which depends on altitude, airspace, weather, and other conditions.

The FAA establishes airworthiness standards and the type certification process to ensure the safety of an in-air operation. From the owner and operator perspective, a pilot cannot ensure the safe operation of an aircraft without understanding the operating parameters established by the manufacturer and FAA during the design process. The design of the aircraft and its operation are intrinsically linked. Thus, the Third Circuit’s attempt to distinguish aircraft design from “in-air operations”—including flight rules and pilot flight responsibilities—is arbitrary and impossible to make in practice. *Sikkelee*, 822 F.3d at 688–89. In this case, the type design consists of detailed drawings and specifications for the O-320-D2C engine, including the configuration of the carburetor component within the engine. *See* 14 C.F.R. § 21.31. In deciding whether to approve the type design and issue a type certificate, the FAA verifies that the engine’s design meets its safety standards. *See id.* The purpose of this evaluation is to ensure its safe operation during flight.

2. In *Abdullah*, the Third Circuit held that state standards of care in the field of aviation safety,

which includes aircraft design, are federally preempted. 181 F.3d at 367. Applying federal standards of care in an aviation products liability action is consistent with the savings clause in the Federal Aviation Act, which states: “A remedy under this part is in addition to any other remedies provided by law.” 49 U.S.C. § 40120(c). And the application of a federal standard of care, while preserving state remedies, is further not inconsistent with the General Aviation Revitalization Act of 1994 (GARA), Pub. L. No. 103-298, 108 Stat. 1552. GARA is a statute of repose and does not address the standard of care in aviation products liability actions. *See* 49 U.S.C. § 40101 note. The Third Circuit erred in restricting the *Abdullah* holding.

There can be no dispute that an aggrieved party, including an aircraft owner, operator, or pilot, should be compensated in the event a manufacturer does not satisfy a legal standard of care. However, AOPA does not believe juries and expert witnesses should be permitted to define state-design standards in making that determination when the FAA has already established safety standards for those products. The federal regulatory scheme preempts the field to prevent inconsistent and conflicting duties for manufacturers. AOPA believes that the application of a federal standard of care in aviation products liability actions strikes the careful balance between compensating victims and the FAA’s role in ensuring safety and developing a uniform system of federal regulation.

CONCLUSION

Based upon the foregoing, the petition for a writ of certiorari should be granted.

Respectfully submitted,

KENNETH MEAD
Counsel of Record
JUSTIN T. BARKOWSKI
AIRCRAFT OWNERS AND
PILOTS ASSOCIATION
421 Aviation Way
Frederick, MD 21701
(301) 695-2018
ken.mead@aopa.org