

Emerging Litigation Issues and Trends:
Airlines, Products and General Aviation Counsel

By:

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The topic of “emerging issues” in aviation products liability can be approached from two viewpoints: new products or new legal issues arising from existing technology. More specifically, an issue could be “emerging” because it arises from a new technological or operational innovation in the aviation industry – a new component on the aircraft or a new product in the cockpit for example. From this perspective, the question to be asked is whether there are peculiar risks, from a product liability perspective, that may be associated with such a new product simply by virtue of its “new-ness” to the market that may not be implicated, or implicated as significantly, with respect to existing, “tried and true” technology.

Second, an issue could be “emerging” in the sense that, while not arising from new technology, it involves a legal question that has not been the topic of significant analysis in aviation jurisprudence historically but that, recently, has begun to get more attention. The question often asked from this perspective is whether aviation products, by virtue of the regulatory framework in place under the FARs for example, should necessarily be treated the same way as other products under the law?

This paper looks at the issue from both of these viewpoints, first looking at new products, then examining the question of whether OEMs should be held strictly liable for PMA parts conforming to the OEMs design, and concluding with a discussion of exclusive federal jurisdiction over product liability wrongful death cases arising from incidents on federal enclaves.

A. Product Liability Issues For New Products to Market

In the wake of the two Malaysian Air tragedies this year, the public pressure has mounted for improved technology on commercial flight. For example, after the disappearance of Malaysian Air Flight 370, ABC News reported on a potential new tracking system that would operate independent of the transponder, but at a steep cost of about \$50,000 per aircraft. See <http://abcnews.go.com/Technology/malaysia-flight-370-shape-flight-tracking-technology/story?id=23055129>. Other media reports called for the installation of military-style ejectable flight data recorders on commercial airliners or implementation of satellite streaming flight data technology. See <http://www.nytimes.com/2014/03/21/technology/though-high-tech-tools-exist-satellites-dont-track-planes.html>. Similarly, in the aftermath of the shooting down of Malaysian Air Flight 17, Senator Chuck Schumer (D., N.Y.) has called for the installation of anti-missile defense systems on commercial airliners at a cost of \$1 million to \$2 million per aircraft. <http://nypost.com/2014/07/27/schumer-wants-anti-missile-technology-on-planes-after-mh17/>. Equipping passenger aircraft with new technologies, whatever the reason, creates a new basis of potential liability in the event of an accident.

a. *Pilot error in use of new technologies:*

The most obvious potential issue that arises with the introduction of new aviation technologies, and particularly products designed to be triggered by or interact with the flight crew, is the

chance of pilot error either in the operation of the new product itself or in the operation of the aircraft, now made more complicated by the introduction of new technologies. To illustrate, according to NTSB statistics, “in the last 20 years, approximately 85 percent of aviation accidents have been caused by ‘pilot error.’” FAA Risk Management Handbook 2009, at v, available at https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/risk_management_handbook/media/rmh_front.pdf. Given this statistic alone, pilot error is always a source of concern in any incident investigation. The introduction of new technologies potentially increases scrutiny on the pilots and creates a situation where pilots may find themselves distracted in the cockpit. For example, manually operated anti-missile technologies often used in military settings, introduce a new flight variable into the cockpit not normally encountered in commercial flight. While more mundane, new tracking technologies could become distracting to the flight crew, particularly in the event of a malfunction. The challenge to the manufacturer would be to make the system passive thereby requiring no pilot input and this eliminating the human component. The feasibility of such an approach would depend on whether the purpose of the tracking device is to augment IFR separation services, which would certainly require pilot input, or whether it is merely to support search and rescue operations. The same concerns regarding distractions to the flight crew would arise with any new interactive technology introduced into a cockpit.

Indeed, pilot error caused by distracted pilots dealing with cockpit technology has been recorded before. In 2007, Adam SkyConnection Airlines Flight DHI 574 crashed over the Makassar Strait in Indonesia. Investigators concluded that the cause of the accident was, at least in part, due to “anomalies” experienced with the Inertial Reference System during flight that caused the pilots to become “engrossed with trouble shooting the anomalies for at least the last 13 minutes of the flight, with minimal regard to other flight requirements. . . . In short, investigators concluded that the pilots became distracted by the problem with the IRS and stopped flying the plane.” In re Air Crash Disaster Over Makassar Strait, Sulawesi, No. 09-cv-3805, 2011 WL 91037, at *1 (N.D. Ill. Jan. 11, 2011). Installation of new technology in aircraft, such as new tracking or defense systems, will increase the scrutiny on pilots with respect to potential error either in their operation of the product itself, to the extent it could cause an incident, or in their operation of the product at the expense of the operation of the aircraft.

b. Is the Sophisticated User / Sophisticated Intermediary / Learned Intermediary Defense available for new technologies?

Failure to warn claims are a mainstay of product liability actions, particularly with respect to actions brought by members of the flight crew or their estates. In the aviation industry, given the typically high level of training and industry expertise of aircraft owners and operators, a frequent defense to such claims is the so-called “Sophisticated user” and / or “Learned Intermediary Defense.” However, legitimate questions concerning the viability of these defenses may arise if the allegedly defective product at issue is new technology.

Sophisticated users are assumed to be so well-versed in the use of a product that warnings are not necessary. See, e.g., First Nat’l Bank & Trust Corp. v. American Eurocopter Corp., 378 F.3d 682, 691-92 (7th Cir. 2004) (“the sophisticated intermediary doctrine is applicable if: (1) the product is sold to an intermediary with knowledge or sophistication equal to that of the manufacturer; (2) the manufacturer adequately warns this intermediary; and (3) the manufacturer

can reasonably rely on the intermediary to warn the ultimate consumer”); Pike v. Trinity Industries, Inc., -- F.Supp.2d --, 2014 WL 3579625, at *5-6 (M.D. Fla. July 16, 2014) (“the rationale behind the sophisticated user doctrine is that a seller or manufacturer should be able to presume mastery of basic operations by experts or skilled professionals in an industry, and should not owe a duty to warn or instruct such persons on how to perform basic operations in their industry.”). For new technologies, particularly those that radically differ from anything currently onboard a commercial aircraft (i.e. defense systems for commercial flights in warzones), a question may reasonably be raised whether anyone, for at least several months after the introduction of the new technology, may be considered sufficiently “sophisticated” to relieve the manufacturer of its duty to warn.

Additionally, the viability of these defenses will undoubtedly be influenced by whether the controlling law at issue considers sophistication in light of industry expertise in general, see, e.g., Pike, 2014 WL 3579625 at *5-6 (sophisticated user doctrine applicable to “experts or skilled professionals in an industry”), or with respect to the specific product at issue, see Founds v. Foster Wheeler LLC, 2014 WL 345224 (E.D. Pa. Jan. 29, 2014) (sophisticated user defense unavailable because there was “no evidence that the Plaintiff knew – or belonged to a class of users who, by virtue of training, education, or employment could reasonably be expected to know – of the hazards of the ... product at issue”) (emphasis added). A court applying the former would, potentially, be more likely to apply the sophisticated user or learned intermediary defenses to industry experts regardless of the “new-ness” of the product, while courts applying the latter may find that the product is simply too new for the requisite expertise to have been developed.

B. New Issues, Old Products: Strict Liability

Existing products can also give rise to emerging legal issues as doctrines that are well established in other product industries are applied to aviation products. An issue that has, somewhat surprisingly, received little (if any) attention in the published aviation case law is the question of strict liability for original equipment manufacturers (“OEMs”) when the defectively designed product at issue is a component part manufactured and sold by a third party under, for example, a PMA.

The question arises from the text of the Restatement (Second) of Torts § 402A or, less frequently, from Sections 1 and 20 of the Restatement (Third) of Torts: Products Liability. Under Section 402A

One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm caused to the ultimate user or consumer, or to his property, if

- (a) the seller is engaged in the business of selling such a product, and
- (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

Restatement (Second) of Torts §402A(1). Similarly, Section 1 of the Restatement (Third) of Torts: Products Liability states that

One engaged in the business of selling or otherwise distributing products who sells or distributes a defective produce is subject to liability for harm to persons or property caused by the defect.

Under this section a person is “engaged in the business of selling” a product when “in a commercial context, one transfers ownership thereto either for use or consumption or for retail leading to ultimate use or consumption. Commercial product sellers include, but are not limited to, manufacturers wholesalers, and retailers.” *Id.* § 20(a). A person is “otherwise distributing products” when “in a commercial transaction other than a sale, one provides the product to another either for use or consumption or as a preliminary step leading to ultimate use or consumption. Commercial nonsale product distributions include, but are not limited to, lessors, bailors, and those who provide products to others as a means of promotion either the use or consumption of such products or some other commercial entity.” *Id.* § 20(b).

Under these sections, the question has arisen in other product contexts as to whether an original manufacturer of a product that incorporates component parts can be strictly liable for a design defect in a component part manufactured by a third party that, while not incorporated into the product at the time of sale, is identical to the component that was. Put another way, can a product manufacturer be strictly liable for replacement component parts it neither sold nor manufactured within the meaning of Section 402A of the Second Restatement or Sections 1 and 20 of the Third Restatement?

The argument against strict liability derives primarily from the text of these sections. Simply put, a product manufacturer that did not manufacture or sell a component part later incorporated into the finished product by the consumer does not fall within the scope of strict liability under the plain text of the sections quoted above. Because of this textual issue, courts have been reluctant to hold original manufacturers strictly liable for defective component parts later purchased as spares.¹

Some courts have adopted a bright line rule denying strict liability to the original manufacturer even for products that are “identical in terms of make and manufacture to the original component that was incorporated into the” original finished product. *Exxon Shipping Co. v. Pacific Resources, Inc.*, 789 F. Supp. 1521, 1526 (D. Haw. 1991). The rationale cited in these cases is three-fold. First, being outside the chain of distribution, the original manufacturer of the finished product lacks sufficient “pull” with the manufacturer of the component part to improve safety – particularly because the original manufacturer has no ability to inspect or test the spare

¹ Note that some courts have entertained disputes about whether a component part actually was on the finished product at the time of the injury, but the general view is that, if it was not (i.e. it was a replacement part incorporated into the product by the consumer after the original sale of the finished product), the “assembler” should not be strictly liable. See *Weekley v. Burnham Corp.*, 871 A.2d 1167, 1177 (D.C. Cir. 2005).

component parts manufactured and sold by a third party. Second, a primary policy justification for strict liability, to impose the costs of injuries on the party that is profiting from the product, is not furthered by imposing strict liability on the original manufacturer outside the chain of distribution. The original manufacturer realizes no financial benefit from the sale of the defective component part and therefore should not be in a position of absorbing the cost of injuries associated with it. Third, courts have cited the need for clear and definitive line drawing in strict product liability cases. Limiting strict liability to only those manufacturers in the chain of distribution provides an easily applied bright-line rule. See Exxon Shipping Co., 789 F. Supp. at 1527; Ford Motor Co. v. Wood, 119 Md. App. 1, 39 (Ct. Sp. App. 1998) (no liability to product manufacturer from failure of a replacement component part unless “the assembler derives an economic benefit from the sale of the product that incorporates the component; the assembler has the ability to test and inspect the component when it is within its possession; and, by including the component in its finished product, the assembler represents to the consumer and ultimate user that the component is safe.”).

Some courts have approached the issue more cautiously, noting the potential for an original manufacturer to be strictly liable for defects in replacement parts it did not manufacture or sell if the finished product specifically required use of that replacement part (whether incorporated into the finished product or used in conjunction with it). See, e.g., O’Neil v. Crane Co., 53 Cal. 4th 335, 350 n. 6 (2012). However, even the court in O’Neil noted that the policy justifications discussed above for limiting the liability of an original manufacturer for defects in another manufacturer’s products would remain viable and would counsel against strict liability. Id.

There is no reported case law addressing this question in the aviation context. As a matter of first principles, however, the loss allocation justification cited above seems just as applicable in the aviation context as in any other product liability setting. Spare parts sold by PMA manufacturers do not financially benefit the original product manufacturer, and thus strict liability would not seem to be appropriate as a loss allocation rule. This is particularly true with respect to OEMs that no longer manufacture older products. In those cases the PMA manufacturers may well be the only party that benefits financially from the continued sale of the product.

Moreover, the need for a “bright line” rule should not be underestimated in the aviation context given the complexity of the products at issue which often incorporate hundreds, if not thousands of component parts, and which are subject to perhaps decades of overhaul and maintenance using replacement parts manufactured by any number of third parties. Holding OEMs strictly liability for PMA parts creates additional questions for the court that unnecessarily complicate cases that are already complex enough. Without a bright line rule, questions about the similarity of the replacement part to the original component sold with the finished product could take over a product liability case. For example, courts may have to inquire as to whether the replacement product really was “identical” to the OEM’s original component, whether the replacement and original component were manufactured by the same entity (or one of its successors) and / or whether the OEM endorsed or qualified the replacement part. See, e.g., Ford Motor Co., 119 Md. App. at 35. While the PMA process under the FAR 21.303 may answer some of these questions in the aviation context, it does not answer all of them particularly since PMA approval comes not from the OEM, but from the FAA.

A closer case could be made, however, with respect to the rationale that the OEM has limited “pull” or influence over the component parts manufacturer. On the one hand, it is no less true for aviation products than for any other that the OEM does not have the ability to test or conduct quality control on PMA parts and therefore is not in a position to ensure that the PMA manufacturer is complying with the OEM’s design and specifications. From this perspective, the OEM has limited “pull” to encourage the PMA manufacturer to improve the product it is selling and, as with the cases cited above, strict liability would seem to be inappropriate.

On the other hand, however, PMA approval requires a showing that the PMA part conforms to the original design and airworthiness requirements. See FAR § 21.303. This regulation thus injects at least some “pull” or influence by the OEM into the manufacture of aviation component parts where none may exist otherwise. And while true that FAR § 21.319, which covers design changes to PMA parts, technically allows the PMA manufacturer to institute design changes in spare parts without the OEM’s approval or authority, as a practical matter, the FAA is unlikely to permit a major design change without inquiring as to whether it complies with the OEM’s original design or whether the OEM has approved of the proposed change. Thus, while as a purely technical matter, the relationship between the OEM and PMA manufacturer is entirely separated by the FAA’s approval process, the FAR’s focus on the OEM’s original design and airworthiness standards could create a distinction of difference with respect to the strict liability of OEM’s for parts manufactured by PMA manufacturers.

C. Product Liability Cases Involving Injuries on Federal Enclaves

It is no surprise that accidents on federal bases and lands are on the rise, as the number of helicopters and military vehicles have dramatically increased over the last decade due to world events. Crashes occurring on federal lands require special considerations. The Enclave Clause, found at Article I, Section 8, Clause 17 of the United States Constitution, grants the United States legislative jurisdiction over any parcel of land ceded by a state to the federal government. Specifically, it gives Congress the power:

To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards, and other needful Buildings.

The United States Supreme Court has interpreted this clause to mean that state laws passed after the date upon which the parcel, or “federal enclave,” was ceded by the State to the federal government do not apply within the enclave, unless the state specifically retained jurisdiction over the subject matter at issue. With respect to claims for personal injury or wrongful death that arise on a federal enclave, however, Congress has enacted 16 United States Code § 457, sometimes referred to as the Federal Wrongful Death Statute:

§ 457. Action for death or personal injury within national park or other place under jurisdiction of United States; application of State laws

In the case of the death of any person by the neglect or wrongful act of another within a national park or other place subject to the exclusive jurisdiction of the United States, within the exterior boundaries of any State, such right of action shall exist as though the place were under the jurisdiction of the State within whose exterior boundaries such place may be; and in any action brought to recover on account of injuries sustained in any such place the rights of the parties shall be governed by the laws of the State within the exterior boundaries of which it may be.

It has been construed as requiring the court to apply the entire corpus of the substantive law of the state where the injury or death giving rise to the products liability action occurred, including its conflict of law rules. Jenkins v. Whittaker Corp., 785 F.2d 720, (9th Cir. 1986).² In doing so, the court is to apply the state law that is in effect on the date the personal injury or death arose. Adams v. Alliant Techsystems, Inc., 201 F.Supp.2d 700, (WD Va 2002).³

The United States must have exclusive jurisdiction in order for the statute to apply. Therefore, it does not apply to an injury or death that occurs in state territorial waters since such waters, although within the cognizance of federal maritime law, are also subject to state jurisdiction. The Tungus v. Skovgaard, 358 U.S. 588 (1959). Thus, the right to recover for a maritime tort not involving death and occurring within the borders of a state is governed by general maritime law, and the right to recover under a state wrongful death statute for a maritime tort is governed by the law of the state. Byrd v. Napoleon Ave. Ferry Co., 125 F.Supp.573 (ED La 1954).

Likewise, while national parks are covered by the Federal Wrongful Death Statute, national forests are not. 16 U.S.C. § 480 states:

The jurisdiction, both civil and criminal, over persons within national forests shall not be affected or changed by reason of their existence,

² The District of Columbia is not within the exterior boundaries of any state; hence, 16 USC §457 does not apply to crashes within that territory. Watson v. Manhattan and Bronx Surface Transit Operating Authority, 487 F.Supp.1273 (D.N.J. 1980).

³ Older cases have interpreted 16 USC §457 to take the substantive law of the state on the date the enclave was ceded to the federal government. See Quadrini v. Sikorsky Aircraft Division, 425 F.Supp. 81 (D.Conn.1977). Modern courts decline to follow that position. See, eg, Vasina v. Grumman Corp., 644 F.2d 112 (2nd Cir 1981) (“The district judge concluded that the substantive law applicable to plaintiff’s tort claim was ‘the tort law of North Carolina as it existed on April 3, 1941, the time the enclave was ceded to the United States ...’ We decline to make Quadrini the law of this circuit on this point. If the authors of §457 had had only the narrow purpose ascribed to them in Quadrini, we think that they would have drawn the statute itself more narrowly. The plain language of the provision as drafted, and its later judicial construction, lead us to conclude that §457 envisions the application of the current substantive law of the surrounding state in actions for death or personal injury occurring within a federal enclave.”)

except so far as the punishment of offenses against the United States therein is concerned; the intent and meaning of this provision being that the State wherein any such national forest is situated shall not, by reason of the establishment thereof, lose its jurisdiction, nor the inhabitants thereof their rights and privileges as citizens, or be absolved from their duties as citizens of the State.

The United States Supreme Court has interpreted this statute as an expression of Congressional rejection of exclusive jurisdiction over national forests. See Wilson v. Cook, 327 U.S. 474, 487-88 (1946); see also, Bilderback v. United States, 558 F. Supp. 903 (D. Or. 1982 (“the Willamette National Forest is not an exclusive federal enclave” because while “it is not clear whether the state of Oregon ceded jurisdiction . . . it is certain that Congress did not accept, or has since renounced, exclusive jurisdiction over the forests” pursuant to 16 U.S.C. § 480).

Parties have attempted to escape the grasp of §457 by arguing that the actions and decisions leading to the crash on the federal enclave occurred outside of the enclave. These arguments have been rejected. See, e.g., Jenkins v. Wittaker Corp., 785 F.2d 720 (9th Cir 1986) (Defendant, a California manufacturer, assembled and delivered atomic simulators to the army, one of which unexpectedly exploded and killed somebody at a military training facility in Hawaii; on appeal, the court ruled that §457 applied, and Hawaii choice of law rules applied, because the accident happened in Hawaii even though the design and assembly of the product occurred in California.); Ferebee v. Chevron Chemical Co., 736 F.2d 1529 (D.C.Cir.1984) (Section 457 applied because decedent was exposed to pesticide while working at a federal enclave); Vasina v. Grumman Corp., 644 F.2d 112 (2d Cir 1981) (because plane’s wing separated and crashed in Boardman Bombing range in Oregon, the choice of law rules of Oregon applied); Holliday v. Extex, 2005 WL2158488 (USDC Hawaii 2005) (rejected plaintiff’s claim that helicopter was in unsafe condition when it took off, as “it is a decedent’s death or injury on a federal enclave that triggers jurisdiction under §457.”); and Corley v. Long-Lewis, 688 F.Supp2d 1315 (ND Al 2010) (Section 457 applied because plaintiff was injured by consuming some asbestos in a navy shipyard).

The law surrounding cases involving crashes on federal enclaves will largely depend on the choice of law rules in the state where the enclave is located. In many instances, the statute may create a cause of action that would not exist in its absence. Quadrini v. Sikorsky Aircraft Division, 425 F.Supp. 81 (D.Conn.1977). This can be favorable to plaintiffs or defendants in products liability cases. See, eg, Resnick v. Sikorsky Aircraft, 660 F.Supp.415 (USDC Conn 1987) (North Carolina choice of law rules applied, as helicopter crashed in North Carolina army base, Plaintiffs strict liability and contract claims dismissed, but negligence claim remained).

The case law involving 16 United States Code § 457 is sparse and not well-developed. However, more guidance is expected with the increase in the amount of cases arising out of injuries and deaths on federal bases and lands. An important part of the strategy of legal practitioners, industry, and representatives of government alike should include carefully consideration of the choice of law rules of the state where the enclave is located. This should be thoroughly examined as quick as possible.