Aviation Products Liability for Manufacturing and Design Defects: Two Recent Developments*

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Introduction: The General Threat of Products Liability

Products liability and tort law in general now finds itself in the limelight both in the U.S. and in Europe. But the U.S. debates have been especially fierce. For years now, consumer organizations and trial lawyers on the one side, and those aligned with manufacturers on the other side, have opposed each other. As a recent publication from Mark C. Rahdert puts it:

"The debate over tort reform and the insurance crisis has been a largely partisan affair. Advocates on both sides have painted their positions with extremely broad brushes. All too often, they have been content to rest their conclusions on sweeping, undocumented, and often unexamined assertions about the connection between rising insurance costs and the structure of tort doctrine. State legislatures (the chief engines of tort reform), and to some extent the courts, have responded in an equally broad-brush, reactive fashion, with a marked preference for the quick fix over the comprehensive solution. Inevitably pressed for time and strapped for resources, they have seldom investigated much below the surface of this complex topic."

This is also true for products liability. For a very long time now, manufacturers have tried unsuccessfully to convince the U.S. Congress to pass legislation which would establish a uniform federal standard for products liability. This is mainly because the various pressure groups are quite well balanced politically. Manufacturers have tried for a long time to introduce liability limits or caps, the

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* This article is the revision of a speech given by Prof. Stolker at the International Conference on Air and Space Policy, Law and Industry for the 21st Century in Seoul, Korea in 1997, which was organized by Prof. Doo Hwan Kim, Director of the Institute for the Legal Studies, Soong Sil University, Seoul, Korea.
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restriction or the abolition of the possibility of punitive damages and the restriction of strict liability. Other interest groups have tried to maintain as much strict liability as possible. In certain instances, they have even advocated a system of pure strict liability, also known as causative liability. The result has been that until recently, that there has been no revolutionary change in the U.S. The case law varies, sometimes leaning more towards one interest group, and at other times leaning more towards the other.

In Europe, too, products liability is in the limelight. There is a major difference, though, with the U.S. because even under the recently enacted strict products liability regulations (the European Communities Directive), there have been very, very few cases. A recent evaluation report to the European Commission mentions only three (!) court cases based on the Directive, two in Germany and one in Italy. And although that number is hard to believe and probably not correct, the difference with the situation in the U.S. is staggering. One can only guess why so few cases are brought before the courts. An explanation may be that many cases are settled out of court. On the other hand, the report states clearly that there was an absence of any general increase in claims.

In this article we will focus on products liability and aviation. Two American developments are particularly noteworthy.

Products Liability and Aviation:
Two Recent Developments in the U.S.

A. The General Aviation Revitalization Act

The first one is the enactment, in 1994, of GARA, the General Aviation Revitalisation Act. The heart of this act is a 18-year statute of repose to protect manufacturers from long-term liability.

B. The Restatement (Third)

The second development is the engagement of the American Law Institute in developing a new Restatement (Third) of Torts, starting with the law of products liability. One of the major changes in the new Restatement deals with design defects. Subsection (b) of the new Restatement adopts a reasonableness (i.e., a risk/utility balancing) test as the standard for judging the defectiveness of product designs. More specifically, according to the Comment, the test is whether a reasonable alternative design would have, at reasonable cost, reduced the foreseeable...

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2 Proposed Final Draft (April 1, 1997).
3 Restatement (Third) of Torts: Products Liability (March 13, 1995), accepted in part by the members of the American Law Institute.
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There has been a great deal of discussion in the U.S. about GARA and the new approach that was chosen in the Restatement. Often, that discussion is reduced to a simple strict liability versus negligence discussion. We question whether this approach is correct. Comparing the new proposal with EC law may help. This article looks at these two recent developments and tries to compare U.S. law with E.C. law. Is the U.S., with GARA and the Restatement, really on its way from strict liability to supernegligence?

The Introduction of GARA in U.S. Products Liability Law

Often products liability is seen as the cause of the decline in small aircraft manufacturing. Of the world's small aircraft, approximately seventy-five percent operate in the U.S. It is said that 5000 small communities in America use small aircraft as their access to the domestic scheduled air carrier market. The general aviation industry is said to contribute more than $40 billion annually to the U.S. economy, and employ more than 540,000 people. Critics claim that industries related to general aviation have lost 100,000 jobs due to the high number of products liability suits. Even though one can not be sure whether that number is correct, experts admit that the rise in products liability insurance premiums is significant.

So, after years of industry lobbying, the result is the General Aviation Revitalization Act. GARA altered liability law in the U.S. The purpose of the legislation is to revitalize the industry of general aviation by establishing

"...a Federal statute of repose to protect general aviation manufacturers from long-term liability in those instances where a particular aircraft has been in operation for a considerable number of years. A statute of repose is a legal recognition that, after an extended period of time, a product has demonstrated its safety and quality, and that it not reasonable to hold a manufacturer legally responsible for an accident or injury occurring after that much time has elapsed."

The heart of the Act is the statute of repose of 18 years. That is, unless an exception applies, no claim may be brought against a manufacturer if the accident occurs more than 18 years after the date of delivery of the aircraft or after replacement of an old component with a new one. GARA only applies to small aircraft and helicopters used for non-scheduled flights.

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It is clear that under GARA, the date of the delivery or the date of the replacement of an old component will be crucial. In the recent California case Altseimer v. Bell Helicopter Textron, Inc., a personal injury suit stemmed from a helicopter crash in which the helicopter was older than 18 years. The court ruled that GARA is not applicable unless every component which allegedly causes the accident is older than 18 years. In Altseimer, the defendant had to prove not only that the pinion gear box was older than 18 years, but also that the pinion gear, a component of the gearbox, was more than 18 years old. The consequence is that, if any of the components at issue are less than 18 years old, GARA will not automatically preclude the suit. After the replacement of an old component by a new one as the American author Steggerda puts it, the repose clock restarts. Steggerda’s correct conclusion is:

“To the defense, the provision highlights the importance of accurate business record-keeping. The age of an aircraft and all of its components parts are now critical factors in aviation cases, and businesses should now devise systems for infinite-duration record-keeping. To the extent feasible, businesses should also begin reconstructing their ‘ancient’ records, the importance of which is now undisputed.”

There are four explicit situations where the repose period is not applicable and much can be said about these exceptions. Unfortunately, in this short article we can merely refer the reader to other studies.

GARA as Compared to European Law

In all EC countries, products liability is governed by the EC Directive on products liability. In his article “Aviation Products Liability Law in Europe: An Update,” Jean-Michel Fobe presents some information about aviation. A British insurance company stated that there is a tendency of the public to claim damages in respect of minor losses caused by defective products. Other insurers confirmed that the Directive had no effect on the premium levels of products liability insurance or on insurance capacity. Aerospace manufacturers in Germany, France and the United Kingdom reported no increased claims. One major aerospace manufacturer confirmed that, in one case claimants have invoked the transposition of the Directive but that this did not affect its defense. The company stated that it could well be that the new legislation induced more amicable settlements.

According to the Fobe study, many industries have stated that there is now a change in commercial usage since the entry into force of the Directive. Legal drafting of commercial agreements is very careful to allow a producer or an importer

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9 See e.g. Steggerda, supra.
who would be regarded as liable on first sight, to exercise his right of recourse against his contractors. The Directive might not be the only reason for these changes. Other factors are the general improvement in safety standards and increased attention to quality and safety. A changed approach toward risk management is noted as well.\footnote{Fobes, supra note 11, at 165.} The heart of the directive can be found in the very first article which states that “the producer shall be (strictly) liable for the damage caused by a defect in his product.” There are, however, six exceptions. For this article, one exception is of particular importance. Article 7(b) determines that the manufacturer shall not be liable if he proves

“that, having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards.”

The burden of proof lies with the manufacturer. Up until now, we have no case law that gives any guidance as to how strict the manufacturers’ proof should be. The article nonetheless makes it clear that, with respect to ‘older’ products, the producer may escape liability.

Especially helpful for European manufacturers is the Directive’s statute of limitation in article 11:

“Member states shall provide in their legislation that the rights conferred upon the injured person pursuant to this Directive shall be extinguished upon the expiry of a period of 10 years from the date on which the producer put into circulation the actual product which caused the damage, unless the injured person has in the meantime instituted proceedings against the producer.”

So, 10 years after the defective product has been put into circulation, plaintiffs can no longer base their claim on strict (products) liability. Of course a plaintiff can sue under negligence, but then he or she must prove negligence on the side of the manufacturer. In that case, under Dutch law, an expiration period of 20 years applies.

Comparing U.S. law and the European Directive, one must admit that the GARA 18-year of repose is in fact less strict than the European 10-year statute of limitations. And in the case of larger planes such as a Boeing 747, there is no Federal statute of limitations apply. Besides that, art. 7(b) of the EC-Directive can be of great help to the manufacturer. When the Directive was implemented in the Dutch legislation, one commentator expected that article to become a very important issue in many cases. Until now, however, that prediction has not become reality.

For these reasons, the conclusion should be that U.S. products liability in general, and even GARA, is no more taxing to manufacturers than the European law is.
The Alternative Design Test of the New Restatement and Mrs. Brooks

On August 2, 1988, Mr. Brooks died when his 1968 Beech Musketeer airplane crashed. His wife brought a wrongful death action against the manufacturer. She claimed that a defect in the plane's engine caused the plane to crash and that the absence of shoulder harnesses caused her husband to suffer an enhanced injury resulting in his death. She filed suit claiming negligence and strict products liability for alleged design defects.  

U.S. products liability law, as does EC law, makes the classic distinction between manufacturing defects, design defects and instances of inadequate warnings or instructions. Under the proposed new Restatement, manufacturing defects would remain subject to strict liability. If the plaintiff can prove that it is probable that the product failed to comport with reasonable consumer's expectations, because of a manufacturing defect, he can invoke strict liability.

Design defects, on the other hand, are more difficult to deal with. Under the new Restatement, design defects would be governed exclusively by a new, and more stringent, liability standard. That part of the proposed new section reads as follows:

"a product is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design ... and the omission of the alternative design renders the product not reasonably safe."

The burden of proof lies with the victim. He must prove that a reasonable alternative design was feasible and that without the alternative design, it was not reasonable to manufacture and sell the product. That is why some commentators say that the new design defect test should not be classified as a mere negligence standard. Perhaps 'super' negligence would be a more appropriate label.

It is a fact that the discussions in the ALI on the proposal regarding the alternative design test have been heated. In American academic writing, some authors are already speaking of the new proposal as being a giant step backwards from strict liability towards 'super negligence.'

Under prevailing rules concerning allocation of burden of proof, the plaintiff must prove that such a reasonable alternative was, or reasonably could have been, available at the time of sale or distribution. In the case of the first reasonableness
test, imagine what the most accident-proof and safe car would be like. As most people would call this hypothetical vehicle a tank, and not a car, it would not be considered to be a reasonable alternative.\textsuperscript{15} For Mrs. Brooks this proposal would mean that she would have to prove that a shoulder harness would have been a feasible alternative and that without the alternative design, it was not reasonable to manufacture and sell the plane.

In \textit{Brooks}, the law of New Mexico was applicable, and New Mexico is one U.S. state which has not required a design defect to be determined by comparison with a prototype. That state's formula has used a broader unreasonable risk of injury test, which allows proof and legal argument under any rational theory of defect.\textsuperscript{16} Further, New Mexico law allows evidence of the risk of a product available at the time of trial and does not limit application of the risk utility calculation to the technology available at the time of design or distribution of the product.\textsuperscript{17} Thus, "[t]he distinction between the negligence approach proposed by the Restatement (Third) and strict liability is the time frame in which the risk-benefit calculation is made."\textsuperscript{18}

The New Mexico Supreme Court expressly chose not to follow the proposed Restatement (Third) standard for design defects. The Court noted that in most actual cases, including the one before it involving a small Beech aircraft with no shoulder harnesses, the manufacturer is actually aware of the risks of the selected design and the then available alternatives. As for those rare instances where the technology known at trial and what was knowable at the time of design and distribution of the product differed (a distinction dismissed as 'academic' and virtually non-existent in the real world), the New Mexico Court held that it was fairer for the manufacturer and suppliers to bear the loss. The Court did hold out the promise that if such a case actually arose, it would reconsider the application of the state of the art defense.\textsuperscript{19}

For Mrs. Brooks, it would not have made much difference if the proposed Restatement (Third) standard or the New Mexico's test applied because the testimony showed that Beech Aircraft had developed a shoulder harness prior to the design and manufacture of the plane which was the subject of the suit.\textsuperscript{20} Another plaintiff might not be as fortunate because she might not be able to procure so easily the evidence required under the proposed standard and therefore would be unable to have her case decided by a jury.

\textsuperscript{15} \textit{E.g.}, \\textit{Dreisonstok v. Volkswagenwerk}, A.G., 489 F.2d 1066 (4th Cir. 1974) (considering whether a Volkswagen van is "defective" because it was not designed with a long hood containing the motor of the van). The case and issue are discussed by Richard L. Cupp, Defining the Boundaries of "Alternative Design" Under the Restatement (Third) of Torts: The Nature and Role of Substitute Products in Design Defect Analysis, 63:2 Tenn. L. Rev., (1996); p. 329.

\textsuperscript{16} \textit{Brooks v. Beech Aircraft Corp.}, 902 P.2d, at 61.

\textsuperscript{17} \textit{Id.} at 62.

\textsuperscript{18} \textit{Ibid.}

\textsuperscript{19} \textit{Ibid.}

\textsuperscript{20} \textit{Ibid.}
A Giant Step Backwards?

If the alternative design test is accepted by the American courts, will that be a giant step backwards in the law of products liability?\(^1\) First, consider some of the nuances that the Restatement itself offers.

Some academic comments on the new Restatement argue that every producer will proclaim that its product design was the safest in use at the time of sale and that a proposed alternative design was not adopted by any manufacturer, or even considered for commercial use, at the time of sale. Nevertheless, if a plaintiff introduces expert testimony to establish that a reasonable alternative design could practically have been adopted, a trier of fact may conclude that the design of the product was defective.\(^2\)

While the plaintiff must prove that a reasonable alternative design would have reduced the foreseeable risks of harm, par. 2(b) does not require the plaintiff to actually produce a prototype in order to make out a prima facie case. For example, qualified expert testimony on the issue would suffice if it reasonably supports the conclusion that a reasonable alternative design could have been adopted at the time of sale. Nor is the plaintiff required to establish in detail the costs and benefits associated with adoption of the suggested alternative design.\(^3\) In fact, the Restatement Comment argues, given the relative limitations on the plaintiff’s access to relevant data, the plaintiff is not required to establish in detail the costs and benefits associated with adoption of the suggested alternative design.\(^4\)

The traditional consumer expectations test is not abandoned by the new Restatement. It remains an important factor for juries to consider.\(^5\)

The Comment on section 2(b) also allows consideration of a broad range of factors in determining whether an alternative design is reasonable and whether its omission renders a product not reasonably safe. The factors include the magnitude of the foreseeable risks of harm, the accompanying instructions and warnings, the nature and strength of consumer expectations regarding the product, the relative advantages and disadvantages of the product as designed and as it alternatively could have been designed, and the effects of the alternative design on production costs, product longevity, maintenance and repair, esthetics and marketability.\(^6\)

It is important to note that it is not a relevant factor that the imposition of liability would have a negative effect on corporate earnings or would reduce employment in a given industry.\(^7\)

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\(^2\) Id. Comment at 18.

\(^3\) Id. Comment at 25.

\(^4\) Ibid.

\(^5\) Ibid.

\(^6\) Ibid.

\(^7\) Ibid.
“the omission of that alternative renders the product not reasonably safe”, a broad range of factors legitimately may be considered in determining whether an alternative design is reasonable. All, or some, of these factors may determine whether or not the product is defectively designed. The Comment adds, however, that the plaintiff is not necessarily required to introduce proof on all of these factors. They will vary from case to case.

Now that the new Restatement has been adopted, will the American Law Institute be leading American courts to take the law a giant step backwards? Would U.S. law, in practice, really start to differ greatly from Europe’s, with its consumer expectations test? Apart from the nuances the Restatement itself offers we wonder for various reasons.

a) the alternative design test of the new Restatement would apply only to design defects not to manufacturing defects;
b) even if he does not have to produce an alternative prototype, the burden of proof on consumer expectations in Europe - as a principle - still rests with the plaintiff;
c) even under the proposed new Restatement, manufacturers may be liable for harm caused by manifestly dangerous products without proof of a reasonable alternative design;
d) in the U.S. the risk/utility balance will still play a role;
e) in almost all of the European countries, the manufacturer may invoke the development risk defense;
f) in case of design defects, it will often come down to a statement of an external expert or on the simple comparison to a safer product that is already sold in the market.

Finally, and this seems to be forgotten by the opponents of the new Restatement, the law regarding products liability actually is not strict liability per se, although it does sound strict. That is particularly true for the category of design defects. In fact, European products liability law is only really strict in so far as manufacturing defects are concerned. Also, the liability of other suppliers under the Directive (art. 3) is a form of vicarious (strict) liability. That conclusion is also reached by the Oxford scholar Jane Stapleton:

“Analysis of the core idea of ‘defect’ in the EC product rule shows, first, that contrary to the common description of those rules as imposing ‘strict liability’ on manufacturers of products, the ‘defect’ notion in combination with Article 6(2) and the defense in Article 7(e) of the Directive generates a

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28 ibid.

29 At least one important U.S. commentator contends that U.S. law is the same: “the concept of ‘strict liability’ applies properly only to manufacturing flaw cases, and ... negligence principles and negligence doctrine govern liability in design and warnings cases.” David G. Owen, Defectiveness Restated: Exploding the “Strict” Products Liability Myth, 1996 U. Illinois L. Rev. 743, 786 (1996). Professor Owen believes that the proposed Restatement (Third) should proclaim this distinction “forthrightly.”
liability on manufacturers rarely, if ever, greater than the liability in negligence and one that is often narrower.\textsuperscript{30}

### What Matters is the Burden of Proof

Nevertheless, what really matters, both in Europe and the U.S., is how the judge will (and should) handle the burden of proof. This is the reason why the Dutch Government, with its flexible division of the burden of proof taken from the Dutch Code of Civil Procedure, tried for so long to keep the somewhat unsubtle rule on the burden of proof from the European Directive out of the Dutch Civil Code. This has finally, under pressure of the manufacturers’ lobby, failed. Still, one works from the presumption that the reasonableness of the situation can bring the judge to change the burden of proof.

And is it not already true that in The Netherlands and in the U.S., in cases of design defects, an expert will need to be called in for help? It is our opinion that, as a practical matter, in many of the American design cases it does not really matter that much which system one chooses: the alternative design test as gatekeeper with a consumer expectations test afterwards, or applying a consumer expectations test directly. The reason is that it may not matter very much which test is utilized if that the trier of fact's conclusion about the ‘expectation of the consumer’ will be heavily influenced by the answer to the question whether an alternative design would have been feasible. Under either analysis, it will almost always be important to determine whether an alternative design was available and whether the consumer was entitled to expect that alternative.

### Conclusions

Two recent U.S. new developments are considered in the field of products liability and aviation. Both the General Aviation Revitalization Act and the alternative design test were compared with EC products liability law.

The difference between U.S. and E.C. law is not that large in either context. The introduction of GARA is, compared to EC law, not an irresponsible step away from strict liability towards negligence. With respect to the alternative design test, we conclude that both regimes – the Third Restatement and the Directive – do not differ that much from one another with respect to design defects. Almost always it comes down to whether an alternative design is possible and whether this is also a reasonable alternative and what the consumer could reasonably expect.

Where design defects are concerned, negligence is consequently very important and may well become even more important in the future in U.S. law. However, products liability never has been exclusively a regime of strict liability. It seems that

\textsuperscript{30} JANE STAPLETON, PRODUCTS LIABILITY, Butterworths, (1994); p 271/2.
American tort law may be about to engage in an experiment where the mix will include a little more negligence and a little less strict liability.\textsuperscript{31}

\footnote{There is, however, one aspect that we want to underline: the liability towards innocent victims on the ground who got injured as a result of air traffic accidents. It is our opinion that the liability towards these victims should be as 'strict' as possible. And, as regards the question of who should be held liable, we would prefer to choose not for the manufacturer of the aircraft, but for the owner or the operator. \textit{See further} Carol J.J.M. Stolker and David I. Levine, "Compensation for Damage to Parties on the Ground as a Result of Aviation Accidents," 22:2 \textit{Air & Space Law}, (1997); p. 60. \textit{See also}, quite impressive, D.H. Kim, "The International Aviation Law: Regulation of Air Traffic in The Law of International Relations," Edited by the Local Public Entity Study Organization Chugakuen University, Japan, 1997, especially pp. 390ff.}