

NACHTSHEIM v. BEECH AIRCRAFT CORP.
847 F.2d 1261 (7th cir. 1988)

Ripple, Circuit Judge.

The plaintiffs, Edward E. Nachtsheim and Production Tool Corporation (Production Tool), brought this products liability action against the defendant, Beech Aircraft Corporation (Beech). Jurisdiction was based on diversity of citizenship, 28 U.S.C. § 1332. The suit arose from an aircraft accident in which the deceased, William W. Steil, was killed. Mr. Steil was the President of Production Tool. He was piloting a company aircraft on January 8, 1978 when the plane crashed near Tyiertown, Mississippi.

The case was tried to a jury on theories of negligence, strict liability, and failure to warn. Mr. Steil's estate sought damages for wrongful death; Production Tool sought damages for the value of the aircraft. After a two-week trial, the jury returned a verdict in favor of the defendant....

In this appeal, the plaintiffs challenge under Federal Rule of Civil Procedure 61 a number of the district court's evidentiary rulings. After reviewing the record and considering each of the challenged rulings, we conclude that there is no basis for granting the requested relief. We therefore affirm the judgment of the district court.

1. Background

A. The Crash

On the afternoon of January 8, 1978, Mr. Steil prepared to fly himself and three passengers from New Orleans, Louisiana to Milwaukee, Wisconsin. Shortly before taking off, he obtained a weather briefing from the New Orleans Flight Service Station. The Flight Service Station informed him that moderate to severe turbulence could be expected between altitudes of 12,000 and 25,000 feet over Louisiana, Mississippi and Tennessee.... The Flight Service Station also mentioned the presence of moderate rime icings with mixed freezing drizzle throughout his planned route of flight, as well as ice pellets on the ground in the area of Jackson, Mississippi....

The Steil plane took off from New Orleans at 3:44 p.m. Immediately after takeoff, the airplane began climbing from an initial altitude of 2,000 feet to an altitude of 4,000 feet. Shortly thereafter, Mr. Steil received clearance to climb to 8,000 feet.... At approximately 4:12 p.m., Mr. Steil contacted the Houston Air Route Traffic Control Center (Houston Center) and indicated that he was at 7,000 feet and beginning to pick up ice. He requested clearance to ascend over the clouds.... Houston Center cleared the Steil craft to an altitude of 11,000 feet, and Mr. Steil acknowledged the clearance.... Two minutes later, Houston Center reported that it had lost the airplane on radar. About this time, an eyewitness on the ground sighted the airplane coming out of the clouds. Moments later, the airplane crashed into a forested area, disintegrated and burned. There were no survivors.

This ice is a crusty, milky type of ice similar to that which forms on the inside of a refrigerator.

B. The investigation

The National Safety Transportation Board (NTSB) conducted an investigation of the crash. Several witnesses to the crash were interviewed. The NTSB accident report summarized the statements of these witnesses:

Witnesses reported, in essence, that the engines or engine were making a surging or cyclic up and down type sound. The sound was heard before the aircraft came into view below the clouds and continued until the *impact* sound. The aircraft came out of the overcast in a nose-down wing level dive of about 45 degrees. A steep left bank was observed with the aircraft still descending. The aircraft disappeared behind trees still moving at a high speed before it was heard crashing through trees. The sound of an explosion was heard after the sound of impact with trees.

An eye witness located about 200 yards southwest of the crash site estimated the cloud ceiling at about 1200-1400 feet and a strong gusty west wind. Prior to the accident it was hazy and about 30-45 minutes after the accident, a light freezing rain started. The weather later cleared from the west and was clear at the accident scene by nightfall.

... The NTSB report did not reach any conclusion as to the cause of the crash. However, a separate report filed by a Beech employee who was part of the NTSB investigating team concluded that: "The aircraft lost control due to either ice or pilot inattention. I believe pilot inattention was the problem, because the aircraft had deicing equipment and only light icing was reported."...

C. The Aircraft

The Steil aircraft was a Beech Baron 58P. It was sold by Beech to Hartzog Aviation in Rockford, Illinois in March 1976. Hartzog used the airplane as a demonstrator during 1976 and 1977 *and* subsequently sold it to Production Tool. At the time of the sale, the plane had accumulated 174 hours of flight time.... All of the maintenance work done on the aircraft while it was owned by Production Tool was done by Hartzog which was not a party to the action....

The Federal Aviation Agency (FAA) has certified the Baron 58P for flight into known icing conditions when equipped according to the manufacturer's pilot's operating handbook and the FAA approved airplane flight manual. The Steil plane was properly equipped when Production Tool purchased it in March 1977.... Nevertheless, the plaintiffs proceeded at trial on the theory that the design of the Baron 58P rendered it unsafe for flight in icing conditions. This theory centered on the elevator, a flight control mechanism located at the rear of the plane. The elevator is a movable control surface

which is attached to the fixed, horizontal portion of the tail called the stabilizer. The gap between the elevator and the horizontal stabilizer is called the cove gap.... The position of the elevator controls the rise or fall of the nose of the plane in relation to the tail, otherwise known as the plane's pitch....

The Baron 58P has a pointed elevator horn which is partially shielded from the airstream by the stabilizer portion of the tail. However, when the elevator is moved, its leading edge protrudes from its streamlined position behind the stabilizer. It is then exposed to the airstream.

D. The Trial

The plaintiffs' theory of the case was presented at trial primarily by then-expert witness, Professor Donald Kennedy. Professor Kennedy testified that the Steil airplane had stalled. When an aircraft stalls, the pilot must use the elevator to lower the nose and thereby restore the proper airflow. According to Professor Kennedy, Mr. Steil was unable to recover from the stall because ice had accumulated in the cove gap due to the elevator's exposure to the airstream. The ice buildup prevented Mr. Steil from using the elevator to regain pitch control.... In short, Professor Kennedy testified that, in his opinion, the primary cause of the Steil crash was a frozen elevator.... He concluded that, because the tail section design of the Beech Baron 58P allows the elevator to become frozen in icing conditions, it is unreasonably dangerous. Additionally, he concluded that the Steil accident could have been prevented had Beech warned Mr. Steil of methods of preventing the elevator from jamming with ice....

Beech contended at trial that the crash was the result of pilot error. Beech agreed with Professor Kennedy that Mr. Steil had stalled the aircraft at about 8,000 feet while attempting to climb to 11,000 feet.... However, Beech disagreed about what happened after the stall. According to one of Beech's chief engineers, the Baron 58P cannot be stalled without a movable elevator because the airplane cannot sufficiently change its angle of attack to occasion the stall.... Beech thus contended that the crash was not the result of a frozen elevator. Rather, Beech argued that Mr. Steil became spatially disoriented following his loss of control of the airplane. Spatial disorientation is a phenomenon in which a pilot becomes confused as to the actual altitude of his aircraft in relation to the earth by reason of the plane's immersion in the clouds. "When spatially disoriented it is very common for a pilot to be in a turn and actually not know it. Upon exiting the clouds, the pilot usually experiences nystagmus and severe confusion whereby he is unable to clearly focus on the instruments."... Beech maintained that it was because of this spatial disorientation, and not because of a frozen elevator, that Mr. Steil was unable to recover from the stall.

An aircraft "stalls" when its wings are unable to produce the lift necessary to sustain the plane in the air because of an inordinate angle of attack relative to the airstream.

M. Discussion

A. The St. Anne Accident

1. Background

The plaintiffs' first evidentiary contention is that the district court erroneously excluded evidence of an accident that occurred near St. Anne, Illinois in 1979. The St. Anne crash involved a model 58TC Baron. The plane took off at approximately 8:18 p.m. and crashed at 8:39 p.m. There were M survivors. Shortly before the crash occurred, the pilot reported that his autopilot had become "a little rambunctious," ... and that he was "having a 'problem' with ice." ... Although the weather report for that evening did not include an ice advisory, a few pilots on the same route had reported some light ice. The NTSB accident report stated that, "[although it could not be verified, it is suspected [the St. Anne plane] was in instrument, icing, meteorological conditions at the time of occurrence."... The St. Anne plane was initially cleared for a cruising altitude of 11,000 feet and was at 15,000 feet when the accident occurred. The aircraft impacted in a 70 or 80 degree nose-down, near-vertical descent and exploded almost immediately upon impact....

The plaintiffs argue that the St. Anne accident was substantially similar to the Steil crash and, therefore, that testimony concerning the St. Anne accident should have been admitted. The plaintiffs submit that the following similarities between the St. Anne accident and the Steil crash justify their position: (1) the parties stipulated to the fact that the St. Anne plane and the Steil plane were identical aircrafts for purposes of this case; (2) both the St. Anne pilot and Mr. Steil were instrument-rated pilots; (3) both the St. Anne flight and the Steil flight "occurred in instrument conditions and, specifically, in an icing environment;" ... (4) in each case there was a reported accretion of airframe ice; and (5) both planes "were in icing conditions for only a short period of time before control was lost and fatal crashes occurred."...

Beech contends that testimony about the St. Anne accident properly was excluded because the accident occurred one year after the Steil crash and because it did not occur under sufficiently similar circumstances to be relevant. Regarding the second point, Beech points to several dissimilarities between the two accidents which justify the exclusion of the St. Anne testimony. These include: (1) the St. Anne pilot broke his altitude clearance of 13,000 feet and was detected at 13,800 feet, while the Steil plane crashed before reaching its assigned altitude of 11,000 feet; (2) the St. Anne pilot had a record of pilot problems; (3) the St. Anne pilot indicated that he was having a problem with his autopilot;

For purposes of this case, the parties agree that the model 58TC Baron is identical to the model 58P Baron involved in the Steil crash.

cannot be determined how long before the crash the St. Anne plane began to pick up ice, whereas Mr. Steil was "beginning to pick up a little Plight rime," ... only three minutes before the impact; and (5) the St. Anne plane crashed in a near-vertical descent, with a 70-80 degree nose-down attitude, whereas the Steil plane appeared flyable when it came

out of the clouds, "as evidenced by its *impact* with the trees at only a three degree nose down attitude."...

The district court excluded testimony about the St. Anne accident after balancing the probative value of the testimony against its prejudicial effect pursuant to Federal Rule of Evidence 403. In ruling from the bench, the court stated that:

[T]he Court feels that there are so many dissimilar facts and so few established facts to indicate similarity that the probative value of this comparison is outweighed by the fact that it would create an unfair prejudice to the defendant and could in the Court's mind, judging from the arguments here[,] add to the confusion of this hearing with the state of the record as it is.

A trial court's balancing under Rule 403 is governed by the abuse of discretion standard *and* will be accorded "great deference" on appeal. We have reviewed the record carefully. It reveals that the district court fully considered the arguments for and against the admissibility of the St. Anne testimony. "When the district court has given such careful attention to a balancing of prejudice and probative value, we are particularly mindful of our duty not to reverse absent a clear abuse of discretion."

Nevertheless, the plaintiffs argue that, in most airplane crash cases, direct evidence of causation is destroyed in the accident. As a result, there is a special need for circumstantial evidence of the type offered in this case. *Cf. Riordon v. Kempiners*, 831 F.2d 690, 698 (7th Cir. 1987) ("A plaintiff's ability to prove discrimination indirectly, circumstantially, must not be crippled by evidentiary rulings that keep out probative evidence because of crabbed notions of relevance or excessive mistrust of juries."). Because this tension exists between the discretion traditionally accorded to trial courts in this area and the need for circumstantial evidence of causation, we shall discuss in more detail the basis for the district court's ruling.

2. Analysis a. *Similar Accidents Argument*

Evidence of other accidents in products liability cases is relevant to show notice to the defendant of the danger, to show existence of the danger, and to show the cause of the accident.... However, before such evidence will be admitted, the proponent must show that the other accidents occurred under substantially similar circumstances....

The foundational requirement that the proponent of similar accidents evidence must establish substantial similarity before the evidence will be admitted is especially important in cases such as this where the evidence is proffered to show the existence of a dangerous condition or causation. The rationale for this rule is simple. In such cases, the jury is invited to infer from the presence of other accidents (1) that a dangerous condition existed (2) which caused the accident. As the circumstances and conditions of the other accidents become less similar to the accident under consideration, the probative force of said evidence decreases. At the same time, the danger that the evidence will be unfairly prejudicial remains. "(The jury might infer from evidence of the prior accident

alone that ultra-hazardous conditions existed ... and were the cause of the later accident without those issues ever having been proved." In addition, the costs in terms of time, distraction and, possibly, prejudice resulting from such evidence also may weigh against admissibility. Accordingly, "even when substantial identity of the circumstances is proven, the admissibility of such evidence lies within the discretion of the trial judge who must weigh the dangers of unfairness, confusion, and undue expenditure of time in the trial of collateral issues against the factors favoring admissibility."

Given these guiding principles, we cannot disturb the district court's conclusion that the plaintiffs have failed to demonstrate sufficient similarity between the St. Anne accident and the Steil crash to justify admission of the disputed testimony. As the district court noted, there are too few established facts about the St. Anne accident from which a comparison between the two accidents can be made. Our primary concern is that the plaintiffs have not presented any evidence that the alleged dangerous condition, a frozen elevator, was in any way involved in the St. Anne accident. In contrast, the cases cited by the plaintiffs in support of their position all involve circumstances where the proponent of the evidence was able to establish certain facts about the other accidents that permitted a useful comparison to be made. See *Rimer v. Rockwell Int'l Corp.*, 641 F.2d 450 (6th Cir. 1981) (alleged dangerous condition was a defective fuel cap; other airplane accidents were caused by fuel siphoning in identical planes with similar fuel systems). The fact that the St. Anne accident occurred one year after the Steil crash does not render the evidence inadmissible. "While only earlier accidents can be relevant to the issue of notice, causation is an issue affected only by the circumstances and the equipment, and is not related to the date of the occurrence." *Uuts v. General Motors Corp.*, 58 F.R.D. 450, 452 (E.D. Pa. 1972). The requirement of similarity is less strict when the evidence is sought to be admitted to show notice. "For purposes of proving other accidents in order to show defendants' awareness of a dangerous condition, the rule requiring substantial similarity of those accidents to the accident at issue should be relaxed." *Jackson v. Firestone Tire & Rubber Co.*, 788 P.2d 1070, 1083 (5th Cir. 1986)...

Here, the plaintiffs have shown only that both the St. Anne plane and the Steil plane were in some sort of icing environment and that both crashed. There was no evidence that an elevator failure occurred in the St. Anne crash that would provide a link between that accident and the plaintiffs' theory of their case.

Moreover, if the district court had permitted this evidence, the defendant would have had to defend, as a practical matter, not only against the present suit, but also against the St. Anne crash. The jury would be confronted with additional technical evidence on a collateral issue that would have unnecessarily prolonged the trial and created a risk of confusion of the issues. "[W]e cannot ignore ... that when a claim is made for the showing of [similar] accidents, an element of a trial on collateral issues, sometimes termed a trial within a trial, is introduced with the real possibility of undue delay." *Kelsay v. Consolidated Rail Corp.*, 749 F.2d 437, 443 (7th Cir. 1984); *see also In re Agent Orange Prods. Liab. Litig.*, 611 F.Supp. 1223, 1256 (E.D.N.Y. 1985) ("The waste-of-time ground for exclusion [under Rule 403] is particularly persuasive when detailed rebuttal testimony would be necessary to establish that the proffered

evidence lacks probative worth."). The district court had good reasons to exclude the testimony and we do not find any abuse of discretion in its ruling.

Conclusion

We have reviewed all of the plaintiffs' contentions on appeal. The district court fairly considered their evidentiary contentions and there was no reversible error. Accordingly, we affirm the judgment of the district court.

Affirmed.