Pre-Impact Pain and Suffering Damages in Aviation Accidents

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NOTES

PRE-IMPACT PAIN AND SUFFERING DAMAGES IN AVIATION ACCIDENTS

"It was a crowded plane on a crowded route. Yumi Ochiai, a 26-year-old off-duty assistant purser for Japan Air Lines, was flying from Tokyo to Osaka when, 13 minutes into the flight, she was startled by a bang directly over her head. 'My ears started to hurt...and the whole cabin was filled with a white cloud.' Ochiai could see 'blue sky' through the Boeing 747SR's ceiling and cushions began flying around the plane. 'We are making an emergency descent' scratched a prerecorded message, 'please fasten your seat belts and extinguish all cigarettes.'

By then JAL Flight 123 had begun to pitch and yaw violently. Ochiai helped flight attendants demonstrate how to put on life jackets and curl up in preparation for a crash. Then she returned to her seat at the rear of the plane. The rest she remembers as a terrifying blur. 'The children were crying 'Mommy!' and because there was panic there were screams.' Suddenly, Flight 123 began what seemed to her an almost vertical plunge."

INTRODUCTION

Increasingly, in aviation accident litigation, there is a trend toward permitting recovery for negligently inflicted mental anguish suffered in the moments immediately preceding death. Recovery for "pre-impact" pain and suffering, while not unprecedented, is a rela-

1. Excerpt from What Went Wrong, Newsweek, Aug. 28, 1985, at 14. Mrs. Ochiai and three other passengers survived the August 12, 1985, crash of Japan Air Lines (JAL) flight 123. The Boeing 747 aircraft crashed into a mountain near Tokyo, killing 520 people. The evidence indicated that the aircraft's vertical stabilizer and rudders broke away, causing it to circle erratically while losing pressure and altitude. N.Y. Times, Aug. 15, 1985, at A8, col. 2. The pilot tried to steer the aircraft by alternatively increasing power to the left and right engines. This maneuver produced a rolling motion. Last Minutes of JAL 123, Time, Aug. 26, 1985, at 22. The pilot kept the stricken 747 in the air for at least 32 minutes after the tail damage was sustained. Id. at 23. An eyewitness who observed the crash from the ground said: "All of a sudden a big airplane appeared from between the mountains...four times it leaned to the left, and each time it tried to recover its balance to the right. It was flying just like a staggering drunk." Id. at 22.
tively new area of tort damages that has been brought to the attention of trial practitioners by recent cases arising out of aviation accidents.\(^2\) Courts applying New York, Illinois, Texas, and Louisiana law have permitted recovery for pre-impact pain and suffering.\(^3\) As pre-impact verdicts become publicized, they will undoubtedly encourage trial lawyers in other states to attempt to persuade courts to interpret wrongful death\(^4\) and survival statutes\(^5\) so as to allow damages for pre-impact terror.\(^6\)

Pre-impact damages are most often sought in aviation accident cases because frequently a measurable period of mental anguish can be shown between the time a mid-air collision or engine malfunction occurs and the time of death.\(^7\) Under these circumstances it's likely that passengers experience at least a few seconds of intense mental anguish preceding impact and instantaneous death.

Pre-impact damages have been awarded in only a few wrongful death cases. Trial lawyers typically have not sought pre-impact damages for several reasons. First, the courts have consistently ignored the compensable reality of negligently inflicted emotional distress.\(^8\) Second, pre-impact pain and suffering is difficult to establish because the plaintiff must rely on circumstantial evidence.\(^9\) Frequently, there is no eyewitness testimony to corroborate the decedent’s asserted pre-impact pain and suffering.\(^10\) Problems of proof and valua-
tion of pre-impact damages is compounded by the fact that pre-impact pain and suffering is transient in nature. Plaintiffs have been discouraged from seeking pre-impact damages because a few courts have held that claims for pre-impact pain and suffering are too speculative.

The recent rash of major aircraft disasters, such as the Japan Airlines Flight 123 crash and the American Airlines Flight 191 wreck at Chicago's O'Hare Airport, has awakened the trial bar and the public to the brief but intense mental anguish experienced by passengers aboard an aircraft that is plummeting toward the earth. Plaintiffs seeking pre-impact damages are forcing courts to examine the issue of whether we have a right to be free from emotional distress in the moments immediately preceding death. Several courts, recognizing the intense mental anguish associated with the realization of imminent doom, have allowed recovery of pre-impact damages upon proper proof of the decedent's awareness of impending death. However, courts applying Illinois law require plaintiffs to show "physical manifestations" of the decedent's emotional distress, a requirement that appears to be an insurmountable obstacle.

11. Id.

12. See, e.g., Demario v. Eastern Airlines Inc., No. 76-287 (E.D.N.Y. Sept. 16, 1981). The Demario case arose out of the crash of Eastern Airlines Flight 66 at John F. Kennedy International Airport. The plaintiffs proffered testimony from survivors of the crash as to the path that the aircraft followed and as to their awareness beforehand that the aircraft was going to crash. In addition, the National Traffic Safety Board Accident Report established that the aircraft encountered violent "wind shear" causing passengers to be thrown about the cabin. A surviving flight attendant testified seeing the cabin emergency lights illuminate and oxygen masks drop from their retainers. In spite of this evidence, the court concluded evidence of the decedent's awareness of impending death was "too speculative."

13. Most Deaths in a Year, N.Y. Times, Aug. 23, 1985, at A3, col. 3-4 by the Associated Press:

The International Civil Aviation Organization, an aviation agency affiliated with the United Nations reported that 1985 was already the worst year in the history of civil aviation, with 15 accidents and more than 1,400 people killed. Previously, 1974 ranked as the worst year for aviation safety, with 1299 deaths.

14. See infra note 79.

15. See infra note 120 and accompanying text.

16. See infra note 29. The physical manifestations requirement limits recovery to only those plaintiffs who exhibit observable injuries or physical symptoms brought about by emotional distress. The physical manifestations requirement has been satisfied by such conditions as high blood pressure, weight loss, gastric disturbances, traumatic neurosis, sleeplessness, etc.
In addressing the issue of whether or not the brief but intense mental anguish associated with the realization of impending death warrants compensation, this note will briefly trace the historical development of emotional distress torts. Second, this note will examine the precedent for pre-impact damages and analyze recent pre-impact cases from New York, Illinois, Texas, and Louisiana. Third, this note will address the issue of speculation as to a decedent’s pre-impact pain and suffering, a problem that is inherent in air disaster cases where eyewitness testimony is unavailable. Fourth, this note will suggest that jurors are capable of making a reasonable valuation of a decedent’s pre-impact pain and suffering. Finally, the note will discuss the practical importance of seeking pre-impact damages.

HISTORY OF EMOTIONAL DISTRESS TORTS

Traditionally, the legal right to emotional tranquility has received little protection from the courts.\textsuperscript{17} Although courts have consistently permitted recovery for pain and suffering incident to a physical injury, they have been reluctant to recognize liability for mental distress as an independent basis for recovery.\textsuperscript{18} The primary reasons given for denying recovery for emotional distress have been the possibility of feigned or trivial claims due to the inherent difficulty in measuring mental distress and the exposure of defendants to unlimited liability.\textsuperscript{19}

While recovery for negligently inflicted emotional distress has been allowed in some jurisdictions, arbitrary restrictions such as the

\textsuperscript{17} 1 F. Harper & F. James, The Law of Torts 665 (1956); Magruder, Mental and Emotional Disturbance in the Law of Torts, 49 Harv. L. Rev. 1033, 1035 (1936).


\textsuperscript{19} See, e.g., Mitchell v. Rochester Ry. Co., 151 N.Y. 107, 45 N.E. 354 (1896) (permitting recovery for emotional distress would lead to a flood of litigation, would allow fictitious and speculative claims, and would lead to recovery for injuries which were not the natural results of the negligent act); Chittrick v. Philadelphia Rapid Trans. Co., 224 Pa. 13, 73 A. 4 (1909) (mental injury, by nature, is easily feigned and thus fictitious claims would flood the courts).
"impact rule,"20 "zone of danger rule,"21 and "physical manifestations requirement,"22 have artificially limited both application and amount of recovery.23 The impact rule limits liability to those plaintiffs who suffered direct physical harm as a result of the defendant's negligence.24 However, the impact rule has eroded into a mere formality, with any trivial impact serving as a basis for liability without any consideration of the actual distress of the plaintiff.25 In bystander cases, most courts have abandoned the impact rule in favor of the "zone of danger" rule.26 Under this approach, if a plaintiff is in close proximity to the defendant's negligent act and in apprehension of physical impact, he may recover for the physical harm resulting from fright caused by the near miss.27 Under both the impact and zone of danger rules, recovery for emotional distress is not allowed unless

20. The impact rule requires a blow or impact as a condition for recovering damages in negligent infliction of emotional distress actions. The impact rule was established in the landmark case of Mitchell v. Rochester Ry. Co., 151 N.Y. 107, 45 N.E. 354 (1896). In Mitchell, a horse drawn carriage stopped just before striking the plaintiff. The plaintiff fainted and subsequently suffered a miscarriage. Recovery was denied because there was no physical impact.

21. The zone of danger rule was established in Orlo v. Connecticut Co., 128 Conn. 231, 21 A.2d 402 (1941). In Orlo, the plaintiff was a passenger in a vehicle following the defendant's trolley. The trolley struck trolley wires, causing the wires to snap and fall upon the vehicle in which the plaintiff was seated. The plaintiff remained seated in the vehicle while the wires flashed and hissed about. The plaintiff allegedly suffered nervous shock as well as aggravation to pre-existing physical ailments. The court allowed recovery because the plaintiff was within such close proximity to the accident that there was substantial risk of physical injury.

22. See infra note 29.


24. See, e.g., Consolidated Traction Co. v. Lambertson, 59 N.J.L. 277, 36 A. 100 (1896) (physical and mental injury must occur together); Gillium v. Stewart, 291 So. 2d 593 (Fla. 1974) (recovery denied because of the absence of an impact where defendant's automobile crashed into plaintiff's house, causing the plaintiff to experience severe chest pains and require immediate hospitalization).


27. The Restatement (Second) of Torts has adopted the zone of danger approach. There is "no liability for illness or bodily harm to another which is caused
accompanied by physical manifestations of the emotional distress.\textsuperscript{28} Individuals who suffered psychological harm resulting from emotional distress such as fright, humiliation, panic, and so forth, were denied recovery because their symptoms were not visible.\textsuperscript{29}

by emotional distress arising solely from harm or peril to a third person, unless the negligence of the actor has otherwise created an unreasonable risk of bodily harm to the other.” \textit{Restatement (Second) of Torts} \textsection 313(2) (1965). \textit{See, e.g.}, Amaya v. Home Ice, Fuel, & Supply Co., 59 Cal. 2d 295, 379 P.2d 513, 29 Cal. Rptr. 33 (1963).

28. The physical manifestation requirement was developed to balance the plaintiffs interest in freedom from emotional distress and the courts interest in eliminating both fraudulent claims and the possibility of unlimited liability. The physical manifestation requirement was viewed as a means of assuring adequate proof of the genuineness of the claim. Comment, \textit{Negligently Inflicted Mental Distress, The Case For An Independent Tort}, 59 Geo. L.J. 1237, 1239 (1971). The Restatement exemplifies the courts reluctance to allow recovery for purely emotional or mental harm without accompanying physical manifestations in negligent infliction actions. The Restatement adheres to the following approach: “If the actor’s conduct is negligent as creating an unreasonable risk of causing either bodily harm or emotional disturbance to another, and it results in such emotional disturbance alone, without bodily harm or other comparable damage, the actor is not liable for such emotional disturbance.” \textit{Restatement (Second) of Torts} \textsection 436A (1965). \textit{See, e.g.}, Womack v. Eldridge, 215 Va. 338, 310 S.E.2d 145 (1947) (in negligent infliction of emotional distress cases, recovery is not permitted for emotional distress by itself; the emotional disturbance must be accompanied by a physical injury).

29. Traditionally, courts have been reluctant to allow recovery for emotional distress itself, and recovery was always limited to the physical manifestations of emotional distress. Robb v. Pennsylvania R.R. Co., 210 A.2d 709, 714-15 (Del. 1965) (recovery limited to physical manifestations of emotional distress, not emotional distress itself). Although it is generally recognized that fright is accompanied by specific physical injuries susceptible to medical diagnosis, courts seem to require that the plaintiff suffer traumatic neurosis, a more visible form of physical injury, before allowing recovery. Comment, \textit{Negligently Inflicted Mental Distress, The Case for an Independent Tort}, 59 Geo. L.J. 1237, 1239 (1971). Most courts denied recovery in cases of “fright” or “shock” apparently on the theory that nervous shock alone inflicts no lasting harm to a normal person, regardless of its severity. Havard, \textit{Reasonable Foresight of Nervous Shock}, 19 Mod. L. Rev. 478, 482 (1956) (the consensus of modern medical opinion is that lasting damage does not occur in normal individuals as a result of emotional shock, however severe). Recovery for “emotional” distress under the physical manifestation requirement is largely dependent on the existence and proof of “physical” injuries. \textit{See, e.g.}, Monteleone v. Co-Operative Transit Co., 128 W. Va. 340, 36 S.E.2d 475 (1945) (no recovery for psychic injury due to nervous shock when no substantial physical injury is claimed). Under the physical manifestation rule, where recovery is limited to physical injuries resulting from emotional distress, the emotional distress itself is viewed as merely a causative agent, unworthy of compensation. See Comment, \textit{Rickey v. Chicago Transit Authority: Consistent Limitations on Recovery for Negligent Infliction of Emotional Distress in Illinois}, 17 J. MAR. L. REV. 563 (1984) (the physical injury requirement is not merely an evidentiary hurdle, satisfaction of which opens the door to recovery for emotional distress itself). If the true concern is redressing the negligent infliction of emotional distress, it seems illogical for courts to require that
Several jurisdictions have expressed dissatisfaction with the artificiality and harshness of the physical manifestations requirement.\textsuperscript{30} Medical research indicates that emotional and physical injury are not separate and distinct types of harm; they are interrelated.\textsuperscript{31} It is medically impossible to differentiate between a physical and purely emotional injury for purposes of satisfying the physical manifestations requirement.\textsuperscript{32} Some courts have recognized that continued adherence to the physical manifestations requirement is arbitrary in light of contemporary medical knowledge in the area of emotional harm.\textsuperscript{33} The physical manifestations requirement has been replaced in some jurisdictions by an objective standard that allows jurors to consider the surrounding circumstances of the case in assessing the validity of the plaintiff's claim.\textsuperscript{34} However, the vast majority of states still employ the physical manifestations requirement as a device to avoid the issue of emotional harm.

plaintiffs suffer anything other than emotional distress. Pearson, \textit{ Liability to Bystanders for Negligently Inflicted Emotional Harm—A Comment on the Nature of Arbitrary Rules}, 34 U. Fla. L. Rev. 477, 519 (1982) (in negligent infliction cases, the harm that concerns the law is emotional, it is illogical to require that the plaintiff suffer a physical injury). Yet, courts continue to require physical manifestations to limit the scope of liability for emotional distress and to provide them with something “tangible” on which to justify damages. Comment, \textit{The Common Law Treatment in Wisconsin of the Right to Recover for Emotional Harm}, 1977 Wis. L. Rev. 1089, 1092 (1977).


32. \textit{Id.}

33. \textit{See, e.g.,} Culbert v. Sampson's Supermarkets, Inc., 444 A.2d 433 (Me. 1982) (rejected the physical manifestations requirement because it encourages extravagant pleading and distorted testimony to demonstrate such manifestations).

The \textit{Molien} court stated: “the attempted distinction between physical and psychological injury merely clouds the issue. The essential question is one of proof, whether the plaintiff has suffered a serious and compensable injury should not turn on this artificial and often arbitrary classification scheme.” \textit{Id.} at 929-30, 616 P.2d at 821, 107 Cal. Rptr. at 839.

34. \textit{See} Rodriguez v. State, 52 Hawaii 156, 472 P.2d 509 (1970), in which the Hawaii Supreme Court adopted an objective standard for emotional distress claims: “serious emotional distress may be found where a reasonable man, normally constituted, would be unable to adequately cope with the mental distress engendered by the circumstances of the case.” \textit{Id.} at 173, 472 P.2d at 520. In adopting this standard, the court relied on Dean Prosser's “guarantee of genuineness” test. Prosser developed the guarantee of genuineness for negligent transmission of death notices and corpse mishandling cases:
Significant advances have been made by medical science in the area of emotional injuries since the inception of the physical manifestations requirement. With the development of psychiatric tests and diagnostic techniques, medical science is able to establish the existence, seriousness and consequences of emotional harm with reasonable certainty. Medical experts recognize that emotional injury and physical injury are not separate and distinct types of harm; the two are intertwined. Every emotional injury has a physical aspect and physical injury has an emotional aspect.

Due to increasing medical proof that all emotional disturbance is accompanied by physical manifestations, courts adhering to the physical injury rule restrict recovery to long term emotional distress evidenced by visible physical symptoms. Medical science generally recognizes two types of mental or emotional reactions to trauma: primary and secondary responses. The body's initial reaction to traumatic stimuli, the primary reaction, is an immediate, automatic response which causes the body to undergo short term physiological changes, such as increased muscle tension, increased tendon reflexes, 

[There] is an especial likelihood of genuine and serious mental distress arising from the special circumstances, which serves as a guarantee that the claim is not spurious. There may perhaps be other such cases. Where the guarantee can be found, and the mental distress is undoubtedly real and serious, there is no essential reason to deny recovery.

38. Id.
39. Nolan & Ursin, Negligent Infliction of Emotional Distress: Coherence Emerging From Chaos, 33 Hastings L.J. 583 (1982) (severe depression, suicidal tendencies, nightmares, sleeplessness, and neurotic fears are some of the emotional disorders courts have identified as sufficiently serious to warrant compensation).
41. In general medical terminology "trauma" refers to body tissue damage from external force: a black eye, a surgical incision, a fractured bone, a gunshot wound. Psychiatry adapted this word to denote damage to the mental and emotional life of humans affected by external events and speaks of "psychic trauma": a child loses its mother; an adolescent girl is raped. Also, certain kinds of accidents can be psychologically traumatic. Modlin, PSYCHIATRIC REACTIONS TO ACCIDENTS, § 20.1 LAWYER'S MEDICAL CYCLOPEDIA (3d ed. 1983).
pupil dilation, overbreathing, sweating and the like.\textsuperscript{42} This reaction protects the individual from possible physical harm and stress aroused by fear for one's safety or by witnessing the painful death of a loved one.\textsuperscript{43} Symptoms of the primary reaction are relatively short in duration and vary according to the intensity of the trauma and the individual.\textsuperscript{44} Pre-impact terror, because it is brief in duration, is a primary reaction to stress. Generally, plaintiffs who suffer primary reactions to emotional distress are unable to satisfy the physical manifestations requirement because their accompanying physical injuries are frequently transient and concealed.\textsuperscript{45}

Conversely, emotional distress in the form of a secondary reaction\textsuperscript{46} or "traumatic neurosis"\textsuperscript{47} is a psychological disorder stemming from an individual's long term inability to adjust to a traumatic

\textsuperscript{42} Leong v. Takasaki, 55 Hawaii 398, 501, 472 P.2d 758, 761 (1974) (the primary response is an instinctive response that protects individuals from the unpleasantness of exposure to trauma, and is exemplified by emotional responses such as fear, anger, and shock). \textit{See also}, Comment, \textit{Negligently Inflicted Mental Distress, The Case for an Independent Tort}, 59 Geo. L.J. 1237, 1249 (1971).


\textsuperscript{44} Id. at 1250.

\textsuperscript{45} Id. at 1258.

\textsuperscript{46} Id. at 1249.

\textsuperscript{47} The term "traumatic neuroses," originated by the medical profession, came to prominence during World War I as an explanatory label for a variety of unusual psychiatric syndromes not ordinarily seen in civilian practice. The phrase is not accepted in official lists of psychiatric diagnostic nomenclature because it proved inexact and misleading. However, it lingers in medical literature as jargon, and has become firmly entrenched in legal terminology. Lack of consensus among medical writers regarding what the term denotes and connotes aggravates the confusion. \textit{See supra note} 41; \textit{see also} Comment, \textit{Neurosis Following Trauma: A Dark Horse in the Field of Mental Disturbance}, 8 Cum. L. Rev. 495 (1977). The term "traumatic neurosis" has largely been replaced by the term "neurosis following trauma." \textit{Id.} at 497. The neurosis is a psychological reaction triggered by a traumatic incident. \textit{Id.} at 497-98. Neurosis following trauma has two stages. The initial stage, traumatic syndrome, emerges shortly after the traumatic incident and lasts anywhere from a few days to several months. The symptoms include nightmares, headaches, dizziness, insomnia, blackouts, anxiety, loss of sexual drive, etc. The second stage develops if the individual cannot regain psychic equilibrium after the traumatic syndrome. The neurosis may surface as one of many neurotic conditions, such as (1) chronic brain syndrome; (2) post-concussion syndrome; (3) anxiety state; (4) hysteria; (5) psychosomatic reaction; (6) psychosis. All of these disorders are indefinite in length. \textit{Id.} at 498; \textit{see also} \textbf{AMERICAN PSYCHIATRIC ASSOCIATION DIAGNOSTIC STATISTICAL MANUAL OF MENTAL DISORDERS} §§ 308.30, 309.81 (3d ed. 1980); Laughlin, \textit{Neuroses Following Trauma}, in \textbf{TRAUMATIC MEDICINE AND SURGERY FOR THE ATTORNEY} 76 (P. Cantor ed. 1962). The terms traumatic neurosis and secondary response are used interchangeably.
event. Secondary responses are extended in duration and are usually accompanied by visible physical symptoms. Expert medical testimony is especially appropriate in such cases because a psychiatrist can evaluate and document the causal relationship between the negligent act and the plaintiff's asserted injury.

**PRECEDENT FOR PRE-IMPACT DAMAGES**

Courts have allowed recovery for the fear of impending death in situations other than airplane crashes. The earliest case where damages were awarded based upon a decedent’s realization of impending death is *Meehan v. Central R.R. Co. of N.J.* In Meehan, the decedent was a passenger on a train which derailed at a speed of forty miles per hour and fell over the edge of an open drawbridge into a river, causing the passenger's death by drowning. The court awarded recovery for the decedent's fear of impending death from the time the train began its descent until the moment of impact with the water below. The result was predicated upon the drawing of a reasonable inference from circumstantial evidence as to what most likely occurred on the train prior to impact.

Similarly, pre-impact damages have been awarded for a decedent's fear of being struck by a falling object as well as terror experienced during a brief interval between the time a decedent fell and subsequent impact with the ground below. In *Kozar v. Chesapeake and Ohio R.R. Co.*, a suit brought under the Federal Employers' Liability Act, the foreman of a wrecking crew was instantly killed in an attempt to rerail a boxcar. The boxcar, which was suspended

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49. *Id.*
51. *Id.*
52. *Id.* The *Meehan* court addressed the issue of speculation as to the decedent's fear of death. The court stated:
   
   "Circumstantial evidence is not to be disregarded. The jury has assessed a value of $10,000 [for the decedent's pain and suffering]. I cannot state as a matter of law that this is excessive. The decedent was presumably thrown around in the car prior to the precipitation of the car into the river, and to his drowning."

*Id.* at 625.
54. *See infra* note 56 and accompanying text.
55. *See infra* note 60 and accompanying text.
over the tracks, began to fall while the decedent was underneath it.57 The decedent was aware of impending danger, as evidenced by witnesses who testified that the decedent attempted to escape the falling boxcar in a bent over position to avoid being struck.58 The court affirmed a $500 award for the decedent's pre-impact terror.59 In the case of Hinson v. SS Paros,60 the court awarded pre-impact pain and suffering damages to the estate of a longshoreman who placed his hand on the chain of a port rail which gave way causing him to fall overboard.61 The court upheld the jury verdict of $5000 for the decedent's pre-impact pain and suffering despite the fact that only a few seconds elapsed between the time he fell and the time he struck the water below.62 The facts of these cases suggest that the decedents were at least briefly aware of their impending death and these cases are, therefore, applicable to most airplane crashes.

The first case addressing the issue of the availability of pre-impact damages arising out of a major air disaster was Feldman v. Allegheny Airlines.63 In Feldman, the plaintiff presented evidence that the passengers died from asphyxiation rather than impact, and that many of them were clustered around a door of the plane that they were unable to open.64 The plaintiff also proffered testimony from a survivor who anticipated the crash when he observed through the plane window that the plane was at an unusually low altitude.65 Arguably, such evidence reasonably supports an inference that the passengers suffered mental anguish associated with the realization of impending death. Yet, the court denied pre-impact damages, holding that the passengers' alleged pre-impact pain and suffering was "too

57. Id. at 364.
58. "The jury certainly could have reasonably determined from this evidence that [the decedent] sustained emotional injuries caused by a terrifying realization that he was about to die." Id. at 366.
59. Id. at 364, 366.
61. Id. at 221.
62. Id. at 222.
63. 382 F. Supp. 1271 (D. Conn. 1974) aff'd in part, 524 F.2d 384 (2d. Cir. 1975). The Feldman case arose out of the crash of an airliner near New Haven Connecticut. In support of his claim for pre-impact conscious pain and suffering prior to death, the plaintiff submitted a National Traffic Safety Board Report that indicated that an intense fire began upon impact. The report also indicated that the accident was deemed survivable. Id. at 1300-01.
64. Id.
65. Id.
speculative” in light of the fact that the aircraft’s “attitude” underwent no dramatic change indicative of disaster.66

The Fifth Circuit was the first jurisdiction to allow recovery for pre-impact pain and suffering in anticipation of imminent death arising from an airplane crash.67 In Solomon v. Warren,68 the decedents were passengers in a rented airplane on a trip to the Caribbean Islands.69 While over open water, the pilot communicated with Air Traffic Control and advised them that the plane was nearly out of fuel and that he was going to attempt to ditch the aircraft near a merchant vessel.70 This was the last communication from the plane and despite an extensive search of the area, no traces of the aircraft or its occupants were ever found.71 There was admittedly no evidence as to the length of time the decedents suffered before death or whether they died immediately upon impact.72 Nonetheless, the Fifth Circuit affirmed the district court’s finding that “both of the deceased knew of the impending crash landing at sea, knew of the immediate dangers involved, and are certain to have experienced the most excruciating type of pain and suffering....[t]he knowledge that one is about to die, leaving three cherished children alone.”73 The court concluded that proof of the decedents’ mental anguish could reasonably be inferred from the circumstances surrounding the plane’s disappearance.74

The court applied Florida law in resolving the issue of damages for the decedents’ mental pain and suffering prior to death.75 Under Florida law, in order to recover for negligently inflicted emotional

66. Id. “Attitude” refers to whether the nose of the aircraft is up or down or whether the wings are level or banked. See Kennelly, Litigation Implications of the Chicago O’Hare Airport Crash of American Airlines Flight 191, 15 J. MAR. L. REV. 273 (1982).
68. Solomon, 540 F.2d at 777.
69. Id. at 781.
70. Id.
71. Id.
72. Id. at 792.
73. Id.
74. The inference is reasonable, almost compelling, that the decedents were aware of the probability of their impending deaths from the time the pilot communicated with Air Traffic Control. Id.
75. Id. at 777. Plaintiffs brought an action for decedent’s pain and suffering pursuant to the Florida Survival Statute, FLA. STAT. § 46.021 (1971).
distress, the plaintiff had to satisfy the "impact rule." The Solomon court employed a novel approach in applying the impact rule: it reversed the usual sequence of impact followed by pain and suffering by permitting recovery for pain and suffering preceding the impact. The court found it illogical to deny a claim for pain and suffering simply because the sequence was reversed. Thus, Solomon stood directly for the proposition that a decedent's mental anguish between plane malfunction and subsequent impact with the ground is compensable.

RECENT PRE-IMPACT CASES

New York Pre-Impact Cases

To date, the only case arising out of the American Airlines Flight 191 crash at Chicago's O'Hare Airport where plaintiffs have been

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77. Solomon, 540 F.2d at 793.
79. For a detailed discussion of the crash see Kennelly, Litigation Implications of the Chicago O'Hare Airport Crash of American Airlines Flight 191, 15 J. MAR. L. REV. 273 (1982); see also National Transportation Safety Board, Aircraft Accident Report: American Airlines, Inc., D-C-10-10, N4027A, Chicago-O'Hare International Airport, Chicago, Illinois, May 25, 1979 (1979). According to the NTSB report, the aircraft's left engine fell off the aircraft during takeoff due to the failure of one of the pylons. Kennelly, at 284. Pylons are the structures beneath the wings which support and connect the engine to the main frame of the aircraft. Id. at 284, n.56. The left engine and pylon assembly separated from the aircraft, went over the top of the left wing and the fuselage, and fell to the side of the runway. Id. at 286. Despite the loss of the left engine, the aircraft continued its takeoff and became airborne. Id. During an 18-second period after it became airborne, the aircraft maintained a relatively stable attitude. Id. at 273, n.4. In other words, during the middle portion of the flight, the aircraft did not tilt, sway back and forth, or go from side to side, but continued to fly in a relatively stable condition. During this 18-second period, the aircraft reached an altitude of approximately 325 feet. Id. at 286. Approximately 20 seconds after becoming airborne, the aircraft began to roll to the left. Id. at 287. It continued to roll and turn to the left until the fuselage of the plane was horizontal. Id. Five seconds later, the aircraft crashed. Id. at 287. Cases arising out of the Flight 191 crash were multi-districted (pursuant to 28 U.S.C. § 1407) on the issue of liability to the United States District Court for the Northern District of Illinois. Id. at 277. Defendants American Airlines and McDonnell Douglas agreed not to dispute liability for compensatory damages. Id. at 283. After discovery had been completed, the cases were remanded back to the various federal district courts for a trial on compensatory damages only. Id. For a discussion of the conflict of law problems associated with Flight 191 crash litigation, see id. at 276-77.
permitted to recover damages for a decedent's pre-impact pain and suffering has been *Shu Tao Lin v. McDonnell Douglas Corp.* The jury awarded the plaintiff $10,000 for the decedent's pre-impact pain and suffering. The case was tried in the Southern District of New York on the issue of damages, and therefore the court applied New York law regarding the negligent infliction of emotional distress.

Initially, the *Lin* court examined whether New York law recognizes a cause of action for pre-impact pain and suffering damages resulting from the decedent's knowledge of impending death. New York tort principles permit recovery for emotional distress if a plaintiff is made to fear for his own safety. More importantly, recovery for emotional distress is allowed even though no physical injuries or "manifestations" occur. Since New York law previously recognized an action for pre-death pain and suffering after an injury that subsequently leads to death, the court had no difficulty extending recovery to include damages for a decedent's mental pain and suffering before impact. The *Lin* court found it illogical to deny recovery for fear experienced during a period in which the decedent is uninjured but aware of imminent death. In short, the plaintiff in *Lin* was entitled to maintain an action for pre-impact emotional distress without being required to plead or prove any physical injuries or "manifestations" resulting from the emotional distress.

Having decided that New York law would recognize a compensable claim for pre-impact damages, the issue remained whether the plaintiff could produce evidence from which the jury could properly infer fear of impending death. In factual settings such as that in *Lin*,

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80. 742 F.2d 45 (2d Cir. 1984).
81. Id. at 53.
82. Erie R.R. Co. v. Tompkins, 304 U.S. 64 (1938) (federal court must apply the substantive law of the state in which it sits).
86. *Lin*, 574 F. Supp. at 1416-17. The Court stated: In several cases, it has been held that a decedent's estate may recover for a decedent's pain and suffering endured after the injury that led to his death [citations omitted]. From this proposition, it is only a short step to the allowing of damages for a decedent's pain and suffering before the mortal blow and resulting from the apprehension of impending death. *Id.* at 1416-17.
87. *Id.*
where there are no eyewitnesses to testify as to what the decedent may have experienced, the plaintiff must proffer a "chain of inferences" to support his pre-impact claim.\textsuperscript{88} In \textit{Lin}, the only evidence that the plaintiff presented to the jury was a seating chart of the aircraft and a stipulation by the parties that the decedent had been assigned to a window seat on the left side of the aircraft above the rear portion of the wing.\textsuperscript{89} From this seat, the decedent may reasonably have observed the left engine and pylon assembly separate from the left

\textsuperscript{88} A "chain of inferences" is inference upon inference without the intervention of positive proof of facts between the inferences. 1 J. Wigmore, \textit{Evidence} § 41 (McNaughton rev. 1961). Professor Wigmore rejected any rule that an inference cannot be based on another inference to establish a fact at issue in a trial. "Single inferences, though weak when taken individually, may be substantial and powerful when added together." \textit{Id.} The issue is not whether any particular inference in a chain of inferences is too weak, but whether in light of all patterns of corroborating and contradictory evidence, the fact to be proved has been shown to the degree of certainty required by the applicable burden of proof. \textit{Id.} In criticizing the rule set forth by some courts that an inference may not be based on another inference, Professor Wigmore gave the following illustration:

For example, on a charge of murder the defendant's gun is found discharged. From this we infer that he discharged it and from this we infer that it was his bullet that struck and killed the deceased. Or the defendant is shown to have been sharpening a knife. From this we argue that he had a design to use it upon the deceased, and from this we argue that the fatal stab was the result of this design. In these and innumerable daily instances we build up inference upon inference, and yet no court (until in very modern times) ever thought of forbidding it. All departments of reasoning, all scientific work, every day's life and every day's trials proceed upon such data.

\textit{Id.} Wigmore also approved of the approach taken in New York Life Ins. Co. v. McNeely, 5 Ariz. 181, 79 P.2d 948, 953 (1938). The \textit{McNeely} court observed that in everyday life we frequently act as a result of the repeated piling of inferences upon inferences. \textit{Id.} at 954. The court held that the true meaning of the inference upon inference rule in civil cases is that it is permissible to draw successive inferences to be used as links in the chain of inferences, provided each prior inference is established to the exclusion of any other reasonable theory. \textit{Id.} at 955. A number of courts have adopted an approach similar to that found in \textit{McNeely}. See, \textit{e.g.}, Carnevale v. Smith, 122 R.I. 1218, 404 A.2d 836, 840-41 (1979) (if a plaintiff intends to meet the burden of proof by relying on a chain of inferences, the ultimate inference drawn by the fact-finder is allowed only if the first or prior inference has been established to the exclusion of any other reasonable inferences). In many cases, the courts have held or at least stated that an inference cannot be based on another inference. See, \textit{e.g.}, United States v. Ross, 92 U.S. 281, 284 (1875) (whenever circumstantial evidence is relied on to prove a fact, the circumstances must be proved by testimonial evidence, and not inferred from circumstantial evidence) \textit{See also} Annot., 5 A.L.R. 3d 100 (1966) (extensive collection of authority, the cases indicate that courts frequently disagree about whether the rule prohibiting chains of inferences should prevail).

\textsuperscript{89} \textit{Lin}, 574 F. Supp. at 1416-17.
wing. He also may reasonably have been aware of the aircraft’s plight from the ensuing roll into a steep left bank.\footnote{59} In order to establish the decedent’s awareness of impending death, the plaintiff had to rely on the following chain of inferences:\footnote{60} (1) the decedent was actually sitting in his assigned seat despite the fact that it is common for passengers to sit in other seats; (2) the decedent was awake and alert; (3) the decedent was looking out the window and saw the engine detach from the wing; (4) the size of the window was large enough to see the loss of an engine and portions of the wing; (5) the path followed by the falling engine as it went over the top of the wing enabled the decedent to view the engine; (6) the decedent would realize the aircraft’s predicament, namely, that it could not fly without the engine; (7) that this realization would have frightened the decedent; (8) that the decedent was aware of impending disaster long enough to cause mental anguish. The Second Circuit found such inferences to be plausible in upholding the jury’s pre-impact pain and suffering award.\footnote{61}

In \textit{Shatkin v. McDonnell Douglas Corp.},\footnote{62} a companion case to \textit{Lin}, the Second Circuit held that speculation as to pre-impact mental anguish should not be substituted for proof.\footnote{63} The court reversed an $87,000 pre-impact award, finding no evidence that the decedent was awake, nor aware that anything was wrong.\footnote{64} The court held that it would be purely conjectural to infer that a passenger seated on the right side of the aircraft knew of the impending disaster.\footnote{65} Insofar as the plaintiff’s claim that pre-impact mental anguish could be presumed from the rolling of the plane, the court observed that aircraft

\footnote{59} The district court stated:

[Given that [the decedent] was assigned to a window seat on the plane's left side, and given the reasonable inference that he was in his seat...the jury might reasonably have inferred that [the decedent] saw the engine and other pieces break away from the plane. Even if he did not see the damage, the jury might still have reasonably inferred that the sudden change in the plane's attitude...notified [the decedent] of the impending disaster. . . .

574 F. Supp. at 1416-17.

\footnote{60} Fuchsberg, supra note 9, at 2, col. 4.

\footnote{61} \textit{Lin}, 742 F.2d at 53.

\footnote{62} 727 F.2d 202 (2d Cir. 1984).

\footnote{63} The court noted that there was no evidence that the pilot or any of the passengers called the danger to the passengers' attention. \textit{Shatkin}, 727 F.2d at 206. "As far as the record is concerned [the decedent] could have dozed off in his seat." \textit{Id.} at 207.

\footnote{64} "It would be sheer speculation to infer that he knew of the incident." \textit{Id.} at 206.

\footnote{65} \textit{Id.} at 207.
frequently roll and bank in compliance with normal airline traffic patterns. The court concluded that because the roll did not develop into a 90-degree left plunge until only three seconds before impact, there was insufficient time for a passenger to recognize and react to the plane’s predicament. Shatkin firmly established that the requirements of proof of both awareness of impending death and appreciation of mental anguish would not be replaced by impermissible speculation.

Illinois Pre-Impact Cases

In contrast to the Lin decision, plaintiffs in cases arising out of the Flight 191 crash filed in the Northern District of Illinois have been unable to recover pre-impact damages. Plaintiffs seeking pre-impact damages were confronted by what appears to be an insurmountable obstacle; they were required to allege and prove “physical manifestations” of the passengers’ emotional distress. Whether plaintiffs will be able to furnish sufficient evidence of the passengers’ physical manifestations to obtain a verdict and have it upheld remains to be seen.

While the Northern District of Illinois recognized a cause of action for pre-impact pain and suffering under Illinois law, the court held that the plaintiffs were required to prove pre-impact emotional distress and physical manifestations resulting from the distress. Illinois recently abandoned the impact rule in favor of the zone of danger rule for negligently inflicted emotional distress. Under this new rule, plaintiffs must allege and prove physical injuries or illness resulting from emotional distress. An Illinois appellate court and the North-

97. Id. at 206-07.
98. Id.
100. The plaintiffs committee on pain and suffering for nine suits arising out of the Flight 191 crash argued that it could show physical manifestations such as increased heart rate, sweating, pupil dilation, bladder and bowel incontinence, muscular tremors, increased respiration, restriction of coronary arteries, hyperirritability of the nervous system and shock. Kamberon, Pre-Impact Distress at Issue in DC-10 Trial, Chi. Daily L. Bull., May 18, 1984, at 1, col. 4.
101. Id. at 1, col. 4 and at 20, col. 1.
102. In Re Air Disaster Near Chicago, Illinois on May 25, 1979, No. MDL-391, slip op. (N.D. Ill. E.D. Sept. 10, 1984). Suits arising out of the Flight 191 crash were consolidated for discovery and pre-trial purposes before Judges Robson and Will. The court concluded that the plaintiffs were entitled to recover damages for alleged pre-impact pain and suffering.
ern District of Illinois\textsuperscript{105} have interpreted Illinois law to mean that once physical manifestations are established, plaintiffs may recover for both emotional distress and the accompanying physical injury. The Northern District of Illinois inferentially suggested that proving physical manifestations of the passenger's pre-impact fright was highly unlikely, but nevertheless allowed plaintiffs to pursue a cause of action for such damages.\textsuperscript{106}

In Moruzi v. McDonnell Douglas Corp.,\textsuperscript{107} the plaintiff sought to satisfy the physical manifestations requirement through expert testimony that passengers aboard Flight 191 suffered increased heart rate, increased breathing rate, pupil dilation, sweating, and so forth.\textsuperscript{108}

\begin{footnotesize}
\begin{enumerate}
\item DeYoung v. McDonnell Douglas Corp., No. 79 C 2790 (N.D. Ill. E.D. June 12, 1985) (available in WESTLAW, Allfeds database). In DeYoung, the court held that plaintiff would be allowed to recover for the internal operation of fright or other emotional disturbance upon proof of physical manifestations. In a footnote, the court cited Judge Will's Memorandum Opinion in In Re Air Disaster Near Chicago, Illinois on May 25, 1979, No. MDL-391, slip op. (N.D. Ill. E.D. September 15, 1983), where the court concluded that the effect of Rickey is to permit recovery for pre-impact pain and suffering by plaintiffs who can show physical manifestations. "[T]here is nothing in Rickey to suggest that, assuming the physical manifestations are established, emotional distress and the resultant physical manifestations are not both compensable." Id. at 10-11.

\item In Re Air Disaster Near Chicago, Illinois on May 25, 1979, No. MDL-391, slip op. at 7 (N.D. Ill. E.D. Dec. 13, 1983) ("each of the plaintiffs, obviously is faced with a difficult task to show that, in the period of seconds before the crash, the decedent in fact suffered physical manifestations or injury as a result of pre-impact fright").


\item Defendant's Memorandum in Support of Supplemental Motion in Limine to Bar Testimony of Plaintiff's Expert Witness, Moruzi v. McDonnell Douglas Corp., No. 79 C 4805 (N.D. Ill. Sept. 12, 1984). The plaintiff's psychiatric witness used the principles of Seyle's General Adaptation Syndrome theory to describe the passenger's reaction to the impending crash. The General Adaptation Syndrome (G.A.S.) was developed by Dr. Hans Seyle. He is regarded by experts as the father of modern stress theory. Dr. Seyle defined stress as the nonspecific response of the body to any demand upon it. The basic definitions of the General Adaptation Syndrome are as follows:
\begin{enumerate}
\item Nonspecific response—one that affects all or most parts of a system without selectivity.
\item The agent's placing demands on the body are called "stressors," which may be beneficial or harmful in nature depending on the individual, the situation and intensity of the stressors.
\end{enumerate}

Dr. Seyle suggested that certain hormones, called "adaptive" hormones are released during stress, and that these hormones help to create the common symptoms seen in all patients. The stressors that may bring about the G.A.S. may be trauma, infection, burns, emotional upset, or other common events. The stages of G.A.S. are as follows:
\end{enumerate}
\end{footnotesize}
In the pre-trial proceedings, defendants moved to dismiss on the availability of damages for pre-impact pain and suffering. Their motion was based on the contention that Illinois law only permits recovery for injury or illness resulting from emotional distress, not normal or predictable anxiety reactions. The court denied the motion and permitted the plaintiff to submit his pre-impact claim to the jury.

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(1) Alarm Reaction—the body shows the characteristics of the first exposure to a stressor. At the same time, the body's resistance is diminished and if the stressor is sufficiently strong, death may result.

(2) State of Resistance—resistance ensues if continual exposure to the stressor is compatible with adaptation. The bodily signs of the alarm reaction have virtually disappeared, and resistance rises above normal.

(3) State of Exhaustion—following long continual exposure to the same stressor, to which the body has become adjusted, eventually adaptation of energy is exhausted.

H. SEYLE, THE PHYSIOLOGY AND PATHOLOGY OF EXPOSURE TO STRESS (1950); see also H. SEYLE, STRESS WITHOUT DISTRESS (1974). In Moruzzi, the plaintiff's psychiatric expert testified that the passengers passed through the first two stages of the G.A.S. because they experienced emotional distress and there would be an immediate attempt by the body to adapt. He testified that it is a reasonable assumption that the passengers had a profound stress experience during those thirty seconds aboard the aircraft. Plaintiff's expert also testified that stress itself is an "injury." He noted that the experience of the stress syndrome creates certain biological abnormalities of an immediate nature which an individual can experience subjectively, such as changes in the heart rate, perspiration, a sense of fear, agitation, and verbalization. When exposed to this type of "stressor," certain individuals feel a need to try to escape, to run and hide while others experience "freezing" and immobility.

109. Memorandum of Defendant in Support of the Motion to Dismiss, Moruzzi v. McDonnell Douglas Corp., No. 79 C 4805 (N.D. Ill. Sept. 9, 1984) (plaintiff cannot recover for the normal physiological reactions to fear, e.g., nausea, increased heart rate, perspiration, but only for physical injuries or illness).

110. Id.

111. The following is an excerpt from Judge Will's instructions to the jury in Moruzzi:

First, you have to determine that [the decedent] did suffer some physical injury, illness, or other physical manifestation as a result of fright, terror, mental anguish, or emotional distress, and then you are going to have to determine, if [decedent] did, what damages will compensate her for her pain and suffering for that 31-second period. You are going to have to decide whether there was any injury or any illness or any physical manifestations... resulting from fright, terror, mental anguish, or emotional distress... because we have no evidence of physical injury, illness, or other physical manifestations from what may have happened to [decedent] or other passengers being bumped around the airplane—that's not an issue—we are not going to try to compensate [decedent] for something we don't know. She may very well have been bruised or banged up or what have you, had broken bones or something else, but that's not relevant. We are talking about physical injury, illness, or distress, or other physical manifestations resulting from terror, fright, mental anguish, or emotional distress during that 31 seconds.
Despite the compelling inference\(^{112}\) that passengers aboard Flight 191 experienced at least a few seconds of severe emotional distress prior to impact, the jury awarded no pre-impact damages.\(^{113}\) Proving physical manifestations of the passengers' mental anguish is virtually impossible in view of the brevity of the flight and the unavailability of eyewitness testimony.\(^{114}\)

**Texas Pre-Impact Cases**

Texas is the leading jurisdiction in the area of pre-impact pain and suffering recovery. In addition to a statute allowing a separate action for a decedent's damages prior to death, Texas tort law recognizes the principle that mental pain and suffering can be inferred from the surrounding circumstances.\(^{115}\) For instance, pre-impact damages have been awarded where a decedent watched with horror as the negligent driver of a vehicle was about to run over him.\(^{116}\) In *Green v. Hale*, the court permitted recovery for the pre-impact pain and suffering of a thirteen-year-old boy who fell underneath a pickup truck moments before the truck began to back up.\(^{117}\) The court

\(^{112}\) See supra note 92 and accompanying text.

\(^{113}\) Telephone interview with Terrence J. Lavin, attorney with the law firm of Corboy & Demetrio, P.C., which represented the plaintiff in *Moruzi*.

\(^{114}\) See supra text accompanying notes 152-56.

\(^{115}\) The Texas survival statute has the following provisions:

All causes of action upon which suit has been or may hereafter be brought for personal injuries, or for injuries resulting in death, whether such injuries be to the health or to the reputation, or to the person of the injured party, shall not abate by reason of the death of the person against whom such cause of action shall have accrued, nor by reason of the death of such injured person.

**TEX. REV. STAT. ANN. art. 5525 (Vernon 1958).**

Awards for pre-impact pain and suffering do not require a very radical extension of Texas tort law because the principle that pain and suffering can be inferred from the circumstances has existed in Texas since 1885. *Texas & P. Ry. Co. v. Curry*, 64 Tex. 85 (1885). Broder, *On Borrowed Time*, in PERSONAL INJURY DESKBOOK 1984 at 421 (1984). See also City of Austin v. Selter, 415 S.W.2d 489 (Tex. Civ. App. 1967). In *City of Austin*, plaintiffs recovered $10,000 for the mental anguish experienced by their son in the moments before he drowned. In upholding the award, the court held that direct proof of the decedent's mental anguish was not necessary because the law does not require such proof on matters of universal knowledge. *Id. at 501* (citing *Texas & P. Ry. Co.*). The court stated:

A boy of [decedent's] age and intelligence certainly realized the hopelessness of the predicament that he was in and in the several minutes that he struggled against an inevitability, that must have become apparent to him, a reasonable inference of suffering and mental anguish could have been drawn by the jury.

*Id. at 502.*


\(^{117}\) *Id.* (The $5,000 award for decedent's pre-impact pain and suffering was
acknowledged that the decedent’s mental anguish was brief in duration, but held that the jury could draw a reasonable inference of terror and distress from the surrounding circumstances.\(^\text{118}\)

Similarly, a Texas appellate court affirmed a jury verdict for pre-impact pain and suffering arising out of a mid-air collision despite the fact that impact with the ground and subsequent death occurred almost instantaneously.\(^\text{119}\) In *Hurst Aviation v. Junell*,\(^\text{120}\) a small propeller aircraft piloted by the decedent was hit from behind by another aircraft. The tail of the decedent’s aircraft was severed and fell off.\(^\text{121}\) The collision occurred just sixty feet above the ground and decedent’s aircraft fell “like a rock”\(^\text{122}\) to the ground.\(^\text{123}\) The jury found that the reasonable value of the mental anguish sustained by the decedent before his death was $20,000.\(^\text{124}\) Because there was only a two or three second interval between the mid-air collision and impact with the ground,\(^\text{125}\) it would have been impossible to show physical manifestations of the decedent’s emotional distress. Yet, the court allowed recovery because the decedent’s mental anguish could be inferred from proof that he was aware of impending death.\(^\text{126}\)

In contrast to the transitory mental anguish in *Hurst*, there was ample evidence from which a jury could infer that passengers endured prolonged agony from the realization of impending death in the case

\(^\text{118}\) Regardless of the brevity of suffering, a tremendous amount of fear can be inferred from the circumstances. *Id.* at 238. “A [child] of [decedent’s] age and intelligence would certainly realize the serious predicament he was in from the moment he felt the backward movement of the truck ... and the inevitability of being crushed ... must have been apparent to him. ...” *Id.*

\(^\text{119}\) 642 S.W.2d 856 (Tex. App. 1982).

\(^\text{120}\) *Id.*

\(^\text{121}\) *Id.* at 858-59.

\(^\text{122}\) See infra text accompanying note 125.

\(^\text{123}\) *Hurst*, 642 S.W.2d at 858-59.

\(^\text{124}\) *Id.*

\(^\text{125}\) *Id.*

\(^\text{126}\) Notwithstanding the brevity of the decedent’s mental anguish, a tremendous amount of fear can be inferred from the surrounding circumstances. *Id.* at 859 (citing Green v. Hale, 590 S.W.2d 231 (Tex. Civ. App. 1979)). The court stated “the evidence and inferences therefrom undeniably show that for a brief period of time [decedent] realized his plight. Unable to control his craft, [decedent] suffered the horror of his impending doom as the plane plummeted to the earth.” *Id.* Texas adheres to the physical manifestations requirement. See, e.g., Harned v. E-Z Fin. Co., 151 Tex. 641, 254 S.W.2d 81 (1953) (no recovery for emotional distress absent physical injuries); Freedom Homes of Texas, Inc. v. Dickinson, 598 S.W.2d 714 (Tex. App. 1980) (damages for mental anguish cannot be recovered without accompanying physical injuries).
of Piper Aircraft Corp. v. Yowell. In Yowell, a small aircraft was flying at an altitude of ten thousand feet when portions of the aircraft, including the tail and wings, began to separate from the aircraft. There were at least thirty seconds between the first indications of peril and the first mid-air break-up, and a substantially longer period of time during which the passengers were aware of their imminent doom as they fell from ten thousand feet to the ground. The jury awarded $500,000 for each decedent's pre-impact mental anguish.

Louisiana Pre-Impact Cases

Federal courts applying Louisiana law have also been receptive to claims for pre-impact pain and suffering. In Haley v. Pan Am World Airways, a case arising out of the Pan American Flight 759

127. 674 S.W.2d 447 (Tex. Civ. App. 1984). In Yowell, the plaintiffs sought pre-impact damages under the Texas survival statute, see supra note 115. The Fort Worth Circuit Court of Appeals subsequently held that the pre-impact award could not stand because the survival action had to be brought in the probate court rather than in the district [trial] court. Id. at 456-59. The pre-impact award was also reversed because the district court erred in allowing the plaintiffs to state a cause of action for pre-impact damages on the last day of the trial, thereby interjecting an entirely new theory of recovery which the defendants were unprepared to defend. Id. at 459-60.

128. The aircraft was cruising at 11,000 feet when as a result of autopilot malfunction, clear air turbulence, or both, the ends of the plane's horizontal tail could not withstand the forces generated and bent in an upward direction causing the pilot to lose control and a rapid descent of at least five thousand feet per minute from eleven thousand feet to ten thousand feet. The pilot momentarily regained some control and was able to keep the plane at ten thousand feet until the damaged elevator horns separated from the aircraft. This separation caused the tail to flap and then break off; when the tail broke off, the aircraft nosed over and continued in a dive until the wings broke up; thereafter the fuselage in which the passengers were seated continued its fall to the ground. The National Traffic Safety Board Report indicated that at least three of the passengers were still in their seats when the fuselage hit the ground, and their seat belts had to be cut to remove them. The report also indicated that after the pilot realized that the tail had broken off, he shut off the fuel due to the emergency situation. The pilot was conscious at that point, and there was no evidence to refute the inference that the passengers were not also conscious of the emergency situation. Siegel, Plaintiffs Recover for Mental Suffering Prior to Death, 19 Trial 6 (1983). Mr. Tom H. Davis, former American Trial Lawyer's Association president and counsel for four plaintiffs in the Yowell case stated that proof of the passengers physical manifestations was unnecessary. "The jury could conclude from the facts in the case that the passengers suffered mental anguish. It was sufficient just to show that the plane broke apart at 11,000 feet and the the passengers were aware of something going wrong." Id.

129. Id.
130. Id.
crash in Kenner, Louisiana, the Fifth Circuit affirmed the district
court's decision that family survivors were entitled to recover for the
decedent's pre-impact pain and suffering.\textsuperscript{132} Although no Louisiana
court had ever confronted the issue of pre-impact pain and suffering, the 
Haley case interpreted principles of Louisiana tort law to find
that fright or mental anguish is a separate element of damages ir-
respective of physical injury.\textsuperscript{133} The court, relying upon its earlier
reasoning in Solomon, concluded that mental anguish is compensable
regardless of whether it occurs before or after impact.\textsuperscript{134}

The Haley case was similar to Lin and Solomon in that there
were no survivors to verify the decedent's asserted mental anguish
and no eyewitnesses to describe the plane's trajectory prior to the
impact. Testimony revealed that the plane took off and climbed to an
altitude of 163 feet before starting its final descent.\textsuperscript{135} The plane rolled
to its left, struck a tree, and hit the ground some four to six seconds
later.\textsuperscript{136} The jury awarded $15,000 for the decedent's pre-impact pain
and suffering.\textsuperscript{137} In sustaining the award, the court held that the jury
could have reasonably inferred that the passengers suffered mental
anguish at least from the time the plane's wing struck the tree.\textsuperscript{138}

\textbf{Analysis of Louisiana, New York, Illinois, and Texas Cases}

Several courts, recognizing that individuals have a right to
freedom from emotional disturbance, have been resourceful in inter-
preting statutes and precedent to allow recovery for pre-impact pain
and suffering.\textsuperscript{139} Due to the unavailability of eyewitness testimony and
the brief duration of the passenger's mental anguish, pre-impact pain
and suffering has proven to be a difficult element of damages for plain-

\textsuperscript{132} Id.
\textsuperscript{133} Article 2315 of the Louisiana Civil Code states in part: “Every act whatever
of man that causes damages to another obliges him by whose fault it happened to
for fright during ordeal); Steward v. Arkansas Southern Railway Co., 36 So. 676, 42
La. 764 (1904) (mental distress itself sufficient to award damages).
\textsuperscript{134} 746 F.2d at 315.
\textsuperscript{135} Id.
\textsuperscript{136} Id. at 315-16.
\textsuperscript{137} Id. at 317.
\textsuperscript{138} “One need not `speculate' that the decedent was aware, for at least four
to six seconds, of the impending disaster. The jury could have reasonably inferred
therefrom that [the decedent] experienced the mental anguish commonly associated
with anticipation of one's own death.” Id. at 317.
\textsuperscript{139} Broder, supra note 115, at 423.
tiffs to deal with in the evidentiary context. Thus, in claims for pre-impact pain and suffering arising out of air disasters, the courts have held that evidence required to establish pain and suffering may be circumstantial evidence, such as the erratic flight path of the plane.

The common thread running through all the recent pre-impact cases is that the plaintiff has the burden of showing that the decedent was in position, and had sufficient time to perceive, recognize, and react to the impending disaster. The Second Circuit's decision that in a common air disaster one passenger can be aware of an imminent crash and another unaware illustrates the emphasis courts have placed upon proving that the individual passenger was indeed aware of impending death. In Lin, proof of the decedent's awareness of impending death was satisfied by a seating assignment from which a jury could reasonably infer that the decedent saw the left engine and a portion of the wing break away from the aircraft.

The Northern District of Illinois has allowed plaintiffs to state a cause of action for pre-impact pain and suffering provided that physical manifestations can be shown. It remains to be seen whether plaintiffs can demonstrate enough physical manifestations to recover pre-impact damages. Texas and Louisiana law recognize the principle that direct evidence of pre-impact pain and suffering is unnecessary in factual situations where the surrounding circumstances ensure the validity of the claim. In aviation accident cases, where direct proof of a decedent's fright and mental anguish is unavailable, courts applying Texas and Louisiana law allow the jury to infer pre-impact terror from circumstantial evidence. Courts applying Texas and Louisiana law limit their inquiry to the sufficiency of evidence regarding the decedent's awareness of impending death.

**Special Problems of Proof in Pre-Impact Cases**

Although there is precedent for the recovery of pre-impact pain and suffering awards, for the most part plaintiffs have not sought

140. See supra text accompanying notes 88-98.
141. See supra note 66 and accompanying text.
142. See supra text accompanying notes 88-138.
143. See supra text accompanying notes 88-98.
144. See supra text accompanying notes 89-92.
145. See supra text accompanying notes 99-114.
146. Kaberon, supra note 100.
147. See supra text accompanying notes 115-138.
148. See supra text accompanying notes 120-138.
149. See supra text accompanying notes 120-138.
150. See supra text accompanying notes 120-138.
such damages in aviation accident cases.151 The reasons appear to be
two-fold. First, pre-impact terror is difficult to establish because the
plaintiffs must rely on circumstantial evidence.152 Second, pre-impact
terror is relatively short in duration, making it difficult for juries to
place a dollar value on the decedent’s mental anguish.153

In attempting to establish the existence of pre-impact mental
anguish, a plaintiff is confronted with serious problems of proof. In
ordinary personal injury actions, testimony from the one suffering pain
is available to prove pain and suffering. However, in pre-impact air
disaster cases, where everyone aboard the aircraft dies immediately
upon impact or shortly thereafter, special evidentiary problems are
presented. In order to justify compensation for pre-impact pain and
suffering, it should be shown that the decedent was aware of impend-
ing death long enough to experience emotional distress.154 Frequently,
there are no survivors in an air disaster and therefore no direct
evidence of the decedent’s mental anguish.155 Thus, the plaintiff must
rely on a chain of inferences to support his claim for pre-impact
damages.156

Speculative Nature of Pre-Impact Damages

Opponents of pre-impact recovery contend that an award of
damages for pre-impact pain and suffering is based upon an imper-
missible chain of inferences that requires the jury to speculate as to
the decedent’s reaction.157 The possibility of speculation as to pre-
impact terror is certainly present because one cannot know what the

151. Fuchsberg, supra note 9, at 2, col. 3-5.
152. Id.
153. Id.
154. See L. KREINDLER, AVIATION ACCIDENT LAW § 13.04[6], citing Gallagher
v. United States, 3 Avi. 17, 725 (E.D. Pa. 1951) (the court inferentially suggested that
in a proper case proof of awareness of impending death would warrant an award for
pre-impact pain and suffering).
155. Direct evidence or testimonial evidence is evidence which, if believed,
resolves a matter in issue. Circumstantial evidence requires additional reasoning to
reach the proposition to which it is directed. C. MCCORMICK, EVIDENCE § 185 (3d ed.
1984).
156. See supra note 88.
157. See Broder, supra note 115, at 419. Mr. Broder addressed the defense’s
argument that pre-impact pain and suffering is too conjectural because it is estab-
lished through circumstantial evidence. He stated:
It is a cruel irony that some opponents of the award of [pre-impact]
damages have based their opposition on the ground that the proof of ter-
or is circumstantial. There are several rejoinders. First, objective proof
of subjective states is always and necessarily circumstantial. We can never
observe how another person feels, but only how he behaves; we estimate
decedent’s reaction was to impending death. It is possible that more inferences must be drawn in order to award damages for pre-impact pain and suffering than for any other form of tort damages. In a factual situation such as Lin or Solomon, where there can be no testimony from the one suffering mental anguish and there are no eyewitnesses as to what the decedent may have experienced, the problems of proof and valuation are magnified beyond the usual levels reached in emotional distress cases. Courts must fashion evidentiary standards that reflect the reality of an air disaster. Resolving the issue of whether pre-impact pain and suffering is “too speculative” should depend on whether the passenger was in position, and had sufficient time to perceive and react to the impending disaster.

Although plaintiffs must rely on circumstantial evidence to establish pre-impact terror, improper speculation and conjecture should not be substituted for proof. The speculative nature of pre-impact terror demands that courts closely scrutinize the basis of an award for pre-impact pain and suffering. The plaintiff must be required to present evidence from which a jury could reasonably infer pre-impact terror on the part of the decedent. For instance, in Air Florida, Inc. v. Zondler, a pre-impact case arising out of the widely publicized crash of a jetliner into the Potomac River, the plaintiff submitted testimony of a survivor of the crash. The survivor testified that he anticipated danger because the plane was shaking and because he saw other passengers “looking around” as if something was wrong. The jury

his feelings by examining our own response to the situation. If a jury can be permitted to infer intent or negligence . . . why should it not be allowed to infer terror? Second, since in the wrongful death case the injured person’s lips are, by definition, forever sealed, the law has generally acknowledged a lower standard of proof and has been more receptive to circumstantial evidence in providing both liability and damages. Third, we detect an element of Catch-22 in the objection. The defense will object that evidence of pre-impact terror is not trustworthy because it cannot be brought directly before the jury like survivors’ grief. Of course, since survivors’ grief damages are too blatant to be permitted by our law, the gravaman of defendants’ objection is not really that either form of proof is infirm, but simply that they don’t want to confront the issue of emotional damages at all.

Id. at 425. Mr. Broder represented the plaintiffs in the pre-impact case of Shu Tao Lin v. McDonnell Douglas, 742 F.2d 45 (2d Cir. 1984). See supra text accompanying notes 80-92.

158. Fuchsberg, supra note 9, at 2, col. 3-5.
160. See supra note 154.
162. Id. at 774.
awarded no damages for the decedent’s pre-impact terror.\textsuperscript{163} The court refused to overturn the jury’s finding because the survivor did not directly observe the decedent’s awareness of impending disaster and the plaintiff failed to demonstrate that decedent was in a position to see that the plane was about to crash.\textsuperscript{164} Similarly, in O’Rourke v. Eastern Airlines Inc., a pre-impact case arising out of the crash of Eastern Flight 66, the court refused to allow the plaintiff to present the testimony of a stewardess who survived the crash because she never saw the decedent or the decedent’s reaction prior to the crash.\textsuperscript{165}

While the conjectural nature of pre-impact pain and suffering is a valid argument supporting remittitur\textsuperscript{166} of such damages, there is little justification for courts to presume that any claim for pre-impact damages is per se too speculative.\textsuperscript{167} The rule denying recovery of speculative damages applies only to circumstances in which the fact of damage itself is questionable.\textsuperscript{168} The proper measure of damages for pre-impact terror, as in any other claim for pain and suffering, is left to the discretion of the jury. Plaintiffs should not be denied recovery merely because there is uncertainty as to the extent of decedent’s mental anguish.\textsuperscript{169} A court should intervene and reduce a pre-impact verdict only when it is apparent that a jury has exceeded the

\begin{itemize}
\item 163. \textit{Id.}
\item 164. \textit{Id.}
\item 165. 730 F.2d 842, 855 (2d Cir. 1984).
\item 166. Remittitur may properly be used to remedy an excessive award of damages made by a properly instructed jury if the award is attributable to passion or prejudice. \textit{See generally}, 6A J. Moore, J. Lucas & G. Grotheer, Jr., \textit{Moore’s Federal Practice}, ¶ 59.08(7) (2d ed. 1985).
\item 168. \textit{See} Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555, 562 (1931). The court stated: “The rule which precludes the recovery of uncertain damages applies to such as are not the certain result of the wrong, not to those damages which are definitely attributable to the wrong, and only uncertain in respect of their amount,” \textit{quoted in} Stentor Electric Mfg. Co. v. Klaxon Co., 115 F.2d 268 (3d Cir. 1940).
\item 169. It is generally recognized by courts and commentators that the extent of tort damages need not be proved with the same definiteness as the cause of the injury. The Restatement (Second) embodies this principle by stating:
\begin{quote}
There is, however, no general requirement that the injured person should prove with like definiteness the extent of harm that he has suffered as a result of the tortfeasor’s conduct. It is desirable that responsibility for harm should not be imposed until it has been proven with reasonable certainty that the harm resulted from the wrongful conduct of the person charged. It is desirable, also, that there be definiteness of proof of the amount of damages as far as is reasonably possible. It is even more desirable, however, that an injured person not be deprived of substantial
\end{quote}
\end{itemize}
limits of reason.\textsuperscript{170} A pre-impact defendant cannot be heard to complain that the valuation of pre-impact terror is speculative when he alone is responsible for the uncertainty of such damages. The inference is more than reasonable that passengers suffer excruciating mental anguish as an aircraft plummets to the earth.\textsuperscript{171} On the other hand, it is not advocated that all a plaintiff should do in order to recover pre-impact damages is enter a court and prove that the decedent was on the plane. But if plaintiff can indeed show that a decedent was aware of impending death, he should be allowed to recover for pre-impact pain and suffering.\textsuperscript{172}

\textit{Brevity of Pre-Impact and Suffering}

As one might expect, pre-impact defendants have argued that the interval of pre-impact pain and suffering is too short, as a matter of law, to warrant recovery.\textsuperscript{173} The typical pre-impact claim involves only a few seconds of mental anguish.\textsuperscript{174} Although the length of time a person suffers is a relevant consideration in determining damages for pain and suffering, the necessarily short duration of pre-impact emotional distress does not preclude recovery for such distress.\textsuperscript{175} Recovery for pre-impact pain and suffering is an excellent illustration of the trend toward awarding damages for pain and suffering measured in minutes and seconds.\textsuperscript{176}

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\item \textsuperscript{170} See, e.g., United States v. Furumizo, 381 F.2d 965 (9th Cir. 1967) (an award of $15,000 for a decedent's pre-death pain and suffering arising out of an airplane crash that occurred less than a minute after take-off was affirmed because it was not "shocking"); Haley v. Pan Am World Airways, 746 F.2d 311 (5th Cir. 1984) (the court held that the jury's $15,000 award for the decedent's pre-impact pain and suffering was neither "shocking" or contrary to "right of reason").
\item \textsuperscript{171} See Haley, 746 F.2d 311.
\item \textsuperscript{172} See supra notes 120-26 and accompanying text.
\item \textsuperscript{173} See supra note 102. In Re Air Disaster Near Chicago, Illinois on May 25, 1979, No. MDL-391 (N.D. Ill. Dec. 13, 1983), the United States District Court for the Northern District of Illinois specifically rejected the defendant's argument that pre-impact emotional distress is too brief as a matter of law to allow recovery. Kaberon, supra note 100, at 1, col. 3, 4.
\item \textsuperscript{174} See supra notes 120-25 and accompanying text.
\item \textsuperscript{175} In Re Air Disaster Near Chicago, Illinois on May 25, 1979, No. MDL-391 (N.D. Ill. Dec. 13, 1983) (the necessarily short duration of the passengers' pre-impact emotional distress ought not to make that distress totally non-compensable as a matter of law).
\item \textsuperscript{176} See, e.g., Hall v. State, 213 So. 2d 169 (La. Ct. App. 1968) ($2,000 award for five minutes of pain and anguish prior to drowning); Beaty v. Buckeye Fabric
\end{itemize}
Traditionally, courts have not imposed limitations on recovery for pain and suffering. In order to recover for pain and suffering, it is usually sufficient to show that the decedent suffered for an "appreciable period of time." What constitutes an appreciable length of time will vary according to the circumstances of each case. Increasingly, courts are permitting awards for very brief periods of pain and suffering. For example, in a recent case, $35,000 was awarded for two-and-one-half minutes of conscious pain and suffering prior to death by drowning. The plaintiff's expert testified that the moments immediately prior to drowning are a period of heightened awareness and seem longer in duration to the person struggling for his life. In a federal case brought under the Death on the High Seas Act, the plaintiff sought pain and suffering damages for passengers who died when their plane suddenly exploded and crashed into the sea. In rejecting the defendant's contention that recovery for pain and suffering was precluded because the passengers died instantaneously, the court said: "The fact that death came in a matter of minutes, or even less, does not necessarily preclude an award for conscious pain and suffering."
The recent pre-impact cases arising out of aviation accidents affirm the principle that recovery will be permitted where the intensity of the emotional distress inflicted is so severe that no reasonable person could be expected to endure it, regardless of its brevity. Cases such as Hurst and Haley reflect judicial recognition that a tremendous amount of mental pain and suffering can be compressed into a few seconds of abject terror.\(^\text{185}\)

**Measurement of Pre-Impact Pain and Suffering**

In aviation disaster cases in which there are no survivors, pre-impact pain and suffering must be established through circumstantial evidence.\(^\text{186}\) Physical evidence such as cockpit voice recorders can show cockpit dialogue, on board noises, explosions and possibly the hysterical voices of passengers in the background. The plaintiff may be able to establish that the decedent was in a position to observe the crash on a screen inside the aircraft.\(^\text{187}\) In Moruzi, the plane was equipped with a cockpit camera which provided passengers with a pilot’s eye of the take-off on a screen.\(^\text{188}\) If there are survivors, they can testify about cabin emergency lights illuminating, oxygen masks dropping from overhead compartments, flashing “fasten seat belt” signs, and other factors that may have alerted passengers to an impending crash.\(^\text{189}\)

The path and trajectory of an aircraft as well as the duration of pre-impact terror can be established with reasonable certainty through the flight recorder.\(^\text{190}\) The flight recorder contains computer data that provides precise information about the plane’s course.\(^\text{191}\) Evidence that the plane pitched and rolled during the pre-crash flight supports an inference that passengers underwent mental anguish prior to impact.\(^\text{192}\) If evidence from flight recorders and cockpit voice recorders is unavailable, testimony concerning the path of the aircraft may be provided by air traffic controllers and radar stations.\(^\text{193}\)

\(^{185}\) One commentator has suggested that pre-impact pain and suffering awards are explained by the intensity of the mental anguish as opposed to its duration: “It is the compression of fear within a few fleeting seconds of horror and panic.” Fuchsberg, supra note 9, at 2, col. 5.

\(^{186}\) Fuchsberg, supra note 9, at 1-2.

\(^{187}\) See infra note 188.


\(^{189}\) See supra note 12.

\(^{190}\) Broder, supra note 115, at 425-26.

\(^{191}\) Id.

\(^{192}\) Shatkin, 727 F.2d at 206-07.

\(^{193}\) Broder, supra note 115, at 425-26.
In DeYoung v. McDonnell Douglas Corp., plaintiff attempted to use an animated version of Flight 191 recorded on videotape to illustrate the path and position of the aircraft.\textsuperscript{194} An alternative method of establishing the erratic flight path of the plane is through the eyewitness testimony of persons who viewed the plane from the ground.\textsuperscript{195} Information about the path and trajectory of the plane is crucial in determining whether passengers experienced pre-impact terror.\textsuperscript{196}

But even if the plaintiff can establish that the decedent was aware of impending death and experienced mental anguish, a question remains as to the proper measure of damages.\textsuperscript{197} In ordinary personal injury suits involving the loss of a limb or fractured bones, proof of the existence of pain and suffering is relatively easy.\textsuperscript{198} Usually the plaintiff can testify as to what he felt, while treating physicians can testify as to what they observed of the plaintiff's pain and suffering.\textsuperscript{199} As stated throughout this note, special problems are presented in pre-impact cases arising out of an air disaster because the lips of the victims are sealed, and plaintiffs are unable to prove by eyewitness testimony the extent of the decedent's suffering.\textsuperscript{200} Indeed, no one will every really know what passengers experience when it becomes apparent that an aircraft is about to crash.\textsuperscript{201} Likewise, it is difficult for a jury to measure objectively exactly how much pain and suffering a plaintiff endures when he or she claims to have back pain. The task of measuring any type of pain and suffering is a difficult one for juries.\textsuperscript{202}

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  \item \textsuperscript{194} No. 79 C 2790 (N.D. Ill. E.D. June 12, 1985) (available on WESTLAW, Allfeds database).
  \item \textsuperscript{195} Id.
  \item \textsuperscript{196} See supra text accompanying notes 66, 97-98.
  \item \textsuperscript{197} See Solomon, 540 F.2d at 793 ($10,000 award for pre-impact damages was if anything on the low side).
  \item \textsuperscript{198} Plant, Damages for Pain and Suffering, 19 OHIO ST. L.J. 200, 204 (1958).
  \item \textsuperscript{199} Id. at 203-04.
  \item \textsuperscript{200} See supra text accompanying notes 8-11.
  \item \textsuperscript{201} See Haley, 746 F.2d 311.
  \item \textsuperscript{202} Olender, Proof and Evaluation of Pain and Suffering in Personal Injury Litigation, 1962 DUKE L.J. 344 (for courtroom purposes we cannot really accurately measure pain); C. McCORMICK, HANDBOOK ON THE LAW OF DAMAGES § 88 (1935) ("Translating pain and anguish into dollars can, at best, be only an arbitrary allowance, and not a process of measurement, and consequently the judge can, in his instructions, give the jury no standard to go by.") See also T. SEDGWICK, A TREATISE ON THE MEASURE OF DAMAGES § 171 (8th ed. 1891) (for pain and suffering there can be no measure of compensation except for the arbitrary judgment of the jury); Botta v. Bruner, 26 N.J. 82, 138 A.2d 713 (1958) (no measure by which the amount of pain and suffering endured can be calculated).
\end{itemize}
Measuring damages for pre-impact pain and suffering is even more problematic if one takes account of the fact that pain and suffering are experienced in different degrees by different individuals exposed to the same traumatic stimuli. 203 Justice Gee, the dissenting judge in Solomon, argued that courts should not allow pre-impact recovery because of the possibility that passengers who anticipate an imminent crash may die the death of martyrs or have been confident about a safe landing up until death. 204 Admittedly, in such a situation the varieties and degrees of possible reactions are almost infinite, each as speculative as the next. 205 However, the argument that pre-impact damages are unmeasureable because of the differences in individual responses to trauma seems largely irrelevant in the context of an impending air disaster when one considers the overwhelming assault on the passengers' psychic sensibilities. Each person has a breaking point beyond which he cannot cope with the stress confronting him. 206 In factual settings such as Yowell or Solomon, it is safe to assume that the average person would experience severe emotional distress. 207 While the valuation of a decedent's pre-impact terror is a difficult task, we intuitively sense that a person who is aware of impending death endures excruciating mental anguish. Medical or psychiatric experts can assist the jury in evaluating a pre-impact claim by describing how the passengers may have responded to the realization of impending disaster. 208

A plaintiff seeking pre-impact damages may wish to introduce expert psychiatric testimony as to passengers' physiological responses to pre-impact terror. In Pregeant v. Pan American World Airways Inc., a case arising out of the crash of Pan American Flight 759, plain-

204. Solomon, 540 F.2d at 797 (Gee, J., dissenting).
205. Fuchsberg, supra note 9, at 2, col. 5-6.
206. Fuchsberg, supra note 9, at 2, col. 6.
208. See supra text accompanying notes 69-70, 127-29.

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tiff's psychiatric expert testified about the physiological effects of stress and described five levels of anxiety leading to panic. The expert described the final 20 seconds of the flight through the use of a stopwatch, dramatically illustrating the passengers' pre-impact terror. The jury awarded $16,000 for pre-impact pain and suffering. In , plaintiff's expert, a psychiatrist who had treated survivors of plane accidents, testified that passengers aboard a plummeting aircraft "would be in an absolute state of pandemonium, panic, and extreme state of stress." The role of the psychiatric expert in the pre-impact case is to estimate the probable reaction of a normal individual to extreme stress.

Although expert testimony is helpful in measuring or evaluating pre-impact pain and suffering, jurors for the most part must rely on the arguments of counsel and their own common sense and experience to fashion a reasonable award for pre-impact terror. Admittedly it is difficult to objectively determine how much pre-impact pain and suffering a particular decedent has endured. The jury must look to the arguments of counsel for guidance. In evaluating the proper measure of damages for pre-impact pain and suffering, plaintiff's counsel should consider the following factors: (1) the situation as it appears to decedent; (2) the severity and probability of injury subjectively contemplated by decedent; (3) probable accompanying physical manifestations, if any, resulting from the threat of impending death; (4) the character and habits of decedent; (5) evidence of decedent's reaction to stress in other situations; (6) decedent's seating assignment; and (7) whether decedent is an experienced airplane passenger. The jury may not be able to arrive at a monetary figure that is exactly equivalent to the amount of pre-impact pain and suf-

209. 762 F.2d 1245, 1248 (5th Cir. 1985).
210. Id.
211. Id. at 1247.
212. See , 746 F.2d at 316.
214. Werchick, Unmeasurable Damages and a Yardstick, 17 Hastings L.J. 263, 279 (1965-66) (pain and suffering can be converted into monetary terms by comparing the character, severity, duration and effect of the pain, with concepts with which the trier of fact is familiar).
215. The fear that juries will neglect to consider the evidence and award of excessive pre-impact damages out of sympathy for the deceased passengers is allayed by the following case. See Malacynski v. McDonnell Douglas Corp. 565 F. Supp. 105 (S.D.N.Y. 1983). The Malacynski case arose out of the Flight 191 crash and was tried in a New York Federal Court. The jury rejected the pre-impact pain and suffering claim, awarding zero damages on this cause.
216. , supra note 115, at 425-27.
ferring experienced by the decedent, but the jury has sufficient evidence at its disposal to make an accurate estimate of damages.\textsuperscript{217} A realistic valuation of damages in the pre-impact case, as in any other case where the jury awards damages for pain and suffering, depends on the juror's ability to draw upon his or her own common sense and experience.\textsuperscript{218} Imagining how they themselves might have responded to the situation enables jurors to render to the decedent the full measure of justice to which he or she is entitled.

**PRACTICAL IMPORTANCE OF PRE-IMPACT DAMAGES**

While pre-impact awards will, in most cases, be relatively small, proof of decedent's pre-impact mental anguish will have an appreciable effect on the jury in its total assessment of damages.\textsuperscript{219} In air crash cases, the defendant usually concedes liability and the trial is limited to the issue of damages.\textsuperscript{220} In those cases, proof of pre-impact mental anguish provides the jury with a sense of the mass suffering and death engendered by the defendant's negligence.\textsuperscript{221} In the absence of a claim for pre-impact damages, evidence such as National Traffic Safety Board accident reports and expert testimony concerning the physiological and psychological effects of terror is excluded from the jury's consideration.\textsuperscript{222} Perhaps the most significant consequence of allowing plaintiffs to seek pre-impact damages is that evidence of a decedent's pre-impact terror is likely to exert a gravitational pull on the jury's calculations of pecuniary damages.\textsuperscript{223}

Plaintiffs' attorneys believe that proof of a decedent's pre-impact terror is likely to evoke a favorable emotional response from jurors.\textsuperscript{224} There is no better way to impress upon the jury the harsh reality of an aviation disaster than through evidence of the passengers' pre-impact pain and suffering.\textsuperscript{225} However, the attorney is cautioned to avoid exaggeration and overkill which may alienate the jury.\textsuperscript{226} Compensation for a decedent's pre-impact pain and suffering may be

\begin{footnotes}
\footnote{217}{Id.}
\footnote{218}{See Werchick, supra note 214, at 279.}
\footnote{219}{Broder, supra note 115, at 427.}
\footnote{220}{Id.}
\footnote{221}{Id. at 426-27.}
\footnote{222}{Telephone interview with Terrence J. Lavin, attorney with the law firm of Corboy & Demetrio, P.C. (Oct. 23, 1984).}
\footnote{223}{Id.}
\footnote{224}{Id.}
\footnote{225}{Broder, supra note 115, at 426-27.}
\footnote{226}{Kaberon, supra note 100, at 20, col. 2. Many attorneys are reluctant to}
\end{footnotes}

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viewed by some jurors as merely an unwarranted windfall to family survivors.227 Judicious use of pre-impact evidence provides jurors with a realistic description of the circumstances of the wrongful death and will assist them in arriving at a proper pecuniary verdict.228

CONCLUSION

In the moments immediately preceding an air disaster, when it becomes apparent that the aircraft is going to crash, airline passengers are exposed to intolerable stress. The recent pre-impact cases arising out of aviation accidents reflect judicial recognition that a tremendous amount of mental anguish can be compressed into a few minutes or seconds of terror. Recovery for pre-impact pain and suffering is appropriate in situations where it is reasonable to infer that the decedent was aware of impending death. Permitting plaintiffs to seek recovery for pre-impact pain and suffering enables juries to render to the decedent the full measure of justice to which he or she is entitled.

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seek pre-impact damages in wrongful death cases. Attorney Phillip E. Howard, who represented the widow and son of the Flight 191 pilot, gaining a $4.15 million dollar verdict, stated he did not seek pre-impact damages because he was "afraid the jury would think you were a pig."

228. Id.