# Why, After All this Time, Is the FAA Just Now Taking Steps to Mandate Child Restraint Systems on Aircraft?

# Suzanne E. Thompson\*

#### TABLE OF CONTENTS

I.	Introduction	534
II.	WHEN IT ALL BEGAN	535
III.	WHO HAS THE ULTIMATE POWER TO MAKE THE CHANGE?	538
IV.	HISTORICAL OVERVIEW	539
	A. National Transportation Safety Board	539
	B. Federal Aviation Administration	540
	C. National Highway Traffic Safety Administration	541
V.	HISTORY OF CHILD RESTRAINT SYSTEMS	542
	A. Child Restraint Systems in Motor Vehicles	542
	B. Child Restraint Systems in Aircraft	544
	1. The Spark Before the Fire	544
	2. Children as Ticketed Passengers Today	544
	3. Children as Ticketed Passengers Historically	545
VI.	THE PROOF BEHIND THE NTSB'S PUSH	547
	A. The Facts Speak for Themselves	547
	B. The Legislative Effort Begins	549
VII.	LIGHTING THE FIRE UNDERNEATH THE FAA	550
	A. Take I: Regulate, Not Educate	550
	B. Take II: FAA Begins to Respond	551
VIII.	THE WHITE HOUSE COMMISSION ON AVIATION	
	SAFETY AND SECURITY	553
	A. Historical Background	553

<sup>\*.</sup> J.D., Gonzaga University School of Law, May 2002; B.S. in Nursing, University of Mary Hardin-Baylor, 1996; B.S. in Human Development, University of California, Davis, 1992; Editor-in-Chief of *Gonzaga Law Review* 2001-2002; Clerk to the Hon. Elaine Houghton, Washington State Court of Appeals, Division II, August 2003-2004. I would like to give gracious thanks to my husband, Todd, and our precious daughter for their unconditional love, support, and strength while I sought to gain the background I felt I needed to be able to make a difference in the future of health care. "People may not always remember what you said or what you did, but they will always remember how you made them feel." (Author unknown). I was inspired by this issue because of my love for emergency nursing and concern for the health and safety of my four-year-old daughter, Jordan, and my daughter's friends.

	B. White House Recommendations for Child Restraint	
	Systems on Aircraft	554
	C. The White House Said Jump, and the FAA	
	Asked "How High?"	555
IX.	COINCIDENCE OR SMART POLITICS	557
X.	THE BATTLE RAGES ON	557
XI.	THE FUTURE OF TRAVELING WITH A "LITTLE ONE"	558
XII.	EDUCATE AND COLLABORATE	558
XIII.	WHERE DOES THIS LEAVE LAP-TRAVEL TODAY?	559
VIV	CONCLUSION	561

"I've often said that it doesn't make any sense to me that during takeoff, landing, and turbulence, adults are buckled up, baggage and coffeepots are stowed . . . but the most precious cargo on that aircraft—infants and toddlers—are left unrestrained."

#### I. INTRODUCTION

The Federal Aviation Administration ("FAA") and the National Transportation Safety Board ("NTSB") have been polar opposites for twenty-three years regarding the protection of children under the age of two on aircraft. Currently, children under the age of two are not required to be ticket holders and as such are unrestrained on aircraft. Over the last twenty-three years, there have been many documented instances where unrestrained children have been severely or mortally injured in turbulent conditions or survivable crash landings. Since 1979, the NTSB has advocated that these young travelers be protected by restraint systems while flying. The FAA, who has the power to offer the protection, has refused to mandate such a provision. However, in the last few years, the FAA has been showing a tendency toward succumbing to the pressures of the NTSB and seems willing to extend protection to all airline passengers, regardless of age.

This Comment first explores the key players in this "battle for the seats." It then gives a historical overview of the use of child restraints in motor vehicles and aircraft and why some key players are so adamantly for and others so adamantly against mandating child restraint systems. There will follow a brief exploration examining the mandates that govern or have governed

<sup>1.</sup> Hon. Jim Hall, Chairman, Nat'l Transp. Safety Bd., Remarks at the Child Passenger Safety in Aviation Meeting (Dec. 15, 1999), http://www.ntsb. gov/speeches/former/hall/jhc991215.htm (last visited May 29, 2002) [hereinafter Chairman Hall's Child Passenger Safety Remarks]. This speech was given at the Child Passenger Safety Aviation Meeting in Arlington, VA, where the NTSB, the FAA, and child advocacy groups were in attendance. *Id.* 

children under the age of two as passengers on airplanes. This Comment then establishes why the NTSB advocates mandating child safety seats on aircraft and identifies two powerhouses that fueled the fire and drove the FAA to comply with child restraint recommendations. A summary of the FAA's responses to these pressures and a detailed analysis of the tactics that forced the FAA to do what the NTSB had been recommending for decades will ensue. Finally, this Comment will conclude with policy implications and future ramifications that will likely occur secondary to the mandate of child restraint systems on aircraft. Even if the mandate "only" saves five infants and toddlers each year, like the FAA claims, this regulation, once adopted, will be unequivocally worthwhile in protecting infants and children on aircraft.

#### II. WHEN IT ALL BEGAN

On February 11, 1998, the FAA issued an Advanced Notice of Proposed Rule Making ("ANPRM") to elicit public comments on issues related to the use of child restraint systems in aircraft during all phases of flight.<sup>2</sup> This came 365 days after the White House Commission on Aviation Safety and Security recommended that the FAA eliminate exemptions allowing passengers under the age of two to travel without the benefit of FAA-approved restraints.<sup>3</sup> The FAA responded with the ANPRM and stated that after reviewing the ANPRM comments, it might consider issuing a final mandate in the form of a Notice of Proposed Rule Making ("NPRM").<sup>4</sup> As of this writing, this significant step toward governing the use of child restraint systems on aircraft has not been

<sup>2.</sup> Child Restraint Systems, Docket No. 29145, Notice No. 98-2 (Fed. Aviation Admin., Feb. 11, 1998) (advanced notice of proposed rulemaking), http://www.faa.gov/avr/arm/n98-02.pdf (last visited June 7, 2002) [hereinafter Child Restraint Systems ANPRM]. The ANPRM was issued by the FAA with comments due on or before June 18, 1998. *Id.* The Administrative Procedure Act does not require an agency to publish an advance notice of proposed rulemaking (ANPRM). BENJAMIN W. MINTZ & NANCY G. MILLER, OFFICE OF THE CHAIRMAN, ADMIN. CONFERENCE OF THE UNITED STATES, A GUIDE TO FEDERAL AGENCY RULEMAKING 143 (2d ed. 1991). An ANPRM puts the public on notice that the agency is considering rulemaking for a specific area and that they are seeking comments from the public and others who might be interested in providing written comments on this area to help the agency make the rule. *Id.* It seeks preliminary public views before formulating a more definite approach to an issue. *Id.* at 142.

<sup>3.</sup> WHITE HOUSE COMM'N ON AVIATION SAFETY & SEC., FINAL REPORT TO PRESIDENT CLINTON 1.13 (Feb. 12, 1997), at http://cas.fac.gov/reports/Whc97rpt.htm (last visited June 7, 2002) [hereinafter WHITE HOUSE COMM'N FINAL REPORT]. The Commission was created by Executive order on August 22, 1996 by President Clinton. Exec. Order No. 13,015, 3 C.F.R. 213 (1997) (establishing a commission to advise President Clinton on matters involving aviation safety and security, including air traffic control).

<sup>4.</sup> Child Restraint Systems ANPRM, supra note 2, at 4-5.

implemented. The FAA did, however, publicly commit to mandate the use of child restraint systems.<sup>5</sup>

There is no case law or statutory interpretation requiring that children under the age of two be restrained on aircraft. Until the FAA completes the administrative law process and proposes a NPRM, unrestrained children under the age of two will continue to be at grave risk when traveling on aircraft.

Jane Garvey, as FAA Administrator, made it clear in 1999 that the FAA was "committed to . . . mandating the use of child restraint systems in aircraft and assuring that children [were] accorded the same level of safety in aircraft as are adults." Administrator Garvey's vow marked the "beginning" of the end of a twenty year battle pitting the NTSB and child advocacy groups against

- 5. Jane F. Garvey, Administrator, Fed. Aviation Admin., Remarks at Child Restraint Roundtable (Dec. 15, 1999), http://www.faa.gov/apa/speeches/1215spjg.htm (last visited June 7, 2002) [hereinafter Administrator Garvey's Child Passenger Safety Remarks].
- 6. Currently, there are only two law review articles that generally address this issue, though not in the manner as presented in this Comment. See generally Alana N. Taylor, What is the Value of a Life?: Child Restraint Systems on Commercial Airlines, 64 J. AIR L. & COM. 307 (1998); Bonita C. Barksdale, Comment, Child Safety Restraints: A Controversy Over Safe Infant Air Travel, 57 J. AIR L. & COM. 201 (1991).
- 7. Administrator Garvey's Child Passenger Safety Remarks, *supra* note 5. The remarks were delivered to attendees at the Child Restraint Roundtable in Arlington, Virginia on December 15, 1999. *Id.* Administrator Garvey said,

Let me be clear, we are committed to two things—mandating the use of child restraint systems in aircraft and assuring that children are accorded the same level of safety in aircraft as are adults.

Last year, the FAA issued an Advanced Notice of Proposed Rulemaking seeking public comments on various aspects of Child Restraint Systems and the affects of mandatory use on families and industry . . . . We wanted the Advanced Notice to help pave the way for the final notice.

Id.

- 8. Chairman Hall's Child Passenger Safety Remarks, *supra* note 1 ("In 1979, we urged the FAA to conduct research to determine the best method of protecting small children during crashes and turbulence.").
- 9. See Nat'l Transp. Safety Bd., About the NTSB: History and Mission, at http://www.ntsb.gov/abt\_ntsb/history.htm (last visited May 29, 2002) [hereinafter About the NTSB: History and Mission] ("The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in the other modes of transportation—railroad, highway, marine and pipeline—and issuing safety recommendations aimed at preventing future accidents.").
- 10. Child Safety Restraint Systems Requirement on Commercial Aircraft: Hearing on H.R. 1309 Before the Subcomm. on Aviation of the Comm. on Transp. & Infrastructure, 104th Cong. 14 (1996) [hereinafter Child Restraint Systems Requirement: Hearing on 1309] (statement of Hon. Jim Lightfoot, Congressional Representative, Iowa), available at http://commdocs.house.gov/committees/trans/hpw104-63.000/hpw104-63\_0.htm (last visited June 7, 2002) (mentioning child advocacy groups such as the Association of Flight Attendants, the

the FAA to mandate child restraint systems on aircraft for children under the age of two. It has been over two years since Administrator Garvey's pledge; final regulations for child restraint systems have yet to be implemented. <sup>11</sup> The FAA reported to the NTSB in July 2001 that "technical issues" needed resolution before they could release the NPRM and thus finalize the mandate. <sup>12</sup>

Although the FAA has refused to mandate child restraint systems on aircraft, the agency has clearly encouraged the use of "certified child restraint systems for all infants and children traveling in air transportation." Its most recent refusal to entertain mandating child restraint systems on aircraft occurred in 1995. At that time, the FAA released a study concluding that mandating child restraint systems would force many parents with small children to travel by other means due to the increased cost of an extra plane ticket. The FaA believed that as a result of the increase in non-airline transportation, the death rate in travel would increase by about eighty-two additional adult and child deaths a year. Finally, the FAA stated that child safety seats, if mandated, would "only" save the lives of five infants in aviation accidents over the next ten years.

The issue of restraint systems on aircraft resurfaced on November 5, 2001, when the American Academy of Pediatrics ("AAP"), a major advocate for

Air Line Pilots Association, the Aviation Consumer Action Project, the Safe America Foundation, and Safety-Belt-Safe-USA.); *Protecting Children in Traffic*, SAFE RIDE NEWS, Winter 1997, at 6.

- 11. NAT'L AVIATION SAFETY DATA ANALYSIS CTR., NASDAC BRIEF REPORT, NTSB Safety Recommendation, No. A-95-51 (July 6, 2001), available at http://nasdac.faa.gov (last visited Oct. 19, 2002) [hereinafter NASDAC BRIEF REPORT: No. A-95-51].
  - 12. *Id*.
- 13. Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 32 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.); FED. AVIATION ADMIN., Tips for Safe Air Travel with Children, at http://www.faa.gov/apa/turb/crstips/crstip.htm (last visited May 29, 2002) ("Proper use of an approved child restraint system (CRS) on an aircraft enhances child safety in the event of turbulence or an accident. The Federal Aviation Administration (FAA) strongly recommends that all children who fly, regardless of their age, use the appropriate restraint based on their size and weight.").
- 14. Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 31-36 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.); NASDAC Brief Report: No. A-95-51, supra note 11. The FAA's report titled "Child Restraint Systems" was released to Congress on June 7, 1995. Id.
- 15. Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 34, 38 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.).
  - 16. Id. at 34.
  - 17. Id. at 33.

child safety, released a policy statement calling "for an end to lap travel for children on planes." The AAP's statement forced the FAA to respond and explain why Administrator Garvey's pledge remained unfulfilled. The FAA responded to the AAP's position by stating that they "may issue a proposed rule on the mandatory use of child safety seats by the end of [the] year [2001]." Given the FAA's track record for delaying action on this decades old public policy concern, it is not surprising that 2001 came and went without the promised mandate materializing.

# III. WHO HAS THE ULTIMATE POWER TO MAKE THE CHANGE?

The Secretary of Transportation and the FAA Administrator have the power to mandate that all children under the age of two be restrained in safety seats on board aircraft.<sup>20</sup> Transportation policies in the United States are developed to provide "fast, safe, efficient, and convenient transportation" while trying to achieve economic growth, stability, and security.<sup>21</sup> In pursuing these overall objectives, the Secretary of Transportation is charged with the duty to consider the need for "effectiveness and safety in transportation systems."<sup>22</sup> One of these transportation systems is aviation.<sup>23</sup>

The FAA Administrator is the chief regulator of the aviation industry.<sup>24</sup> Not all of the duties and powers relevant to the aviation industry, however, are carried out by the Administrator.<sup>25</sup> The Secretary of Transportation, for example, carries out many of the duties and powers governing the aviation industry.<sup>26</sup> Nevertheless, it is the FAA Administrator who is given the power and the duty to carry out all matters related to aviation safety, with the exception of those related to the transport of hazardous materials.<sup>27</sup>

<sup>18.</sup> Press Release, Am. Acad. of Pediatrics, AAP Calls for an End to Lap Travel for Children on Planes (Nov. 5, 2001), http://www.aap.org/advocacy/archives/novair.htm (last visited May 29, 2002) [hereinafter Am. Acad. of Pediatrics Press Release].

<sup>19.</sup> Jim Morris, Pediatric Group: FAA Should Require Child-Safety Seats for Infants On Flights, DALLAS MORNING NEWS, Nov. 6, 2001, at 8A, available at 2001 WL 29583174; FAA Expected to Ban "Lap-Child on Flights," USA TODAY, Nov. 5, 2001, at D-08, available at 2001 WL 547466 (quoting a statement by FAA spokesman Allison Duquette).

<sup>20.</sup> See 49 U.S.C. § 302(c)(1) (1994); 49 U.S.C. § 106(f)(2)(iii) (Supp. V 2000).

<sup>21. 49</sup> U.S.C. § 101(a) (1994).

<sup>22. 49</sup> U.S.C. § 302 (c) (1994); Taylor, supra note 6, at 313.

<sup>23.</sup> See 49 U.S.C. § 106 (b) (1994).

<sup>24. 49</sup> U.S.C. § 106 (a) (1994).

<sup>25. 49</sup> U.S.C. § 106(f)(1), (2) (A) (i –iv) (Supp. V 2000).

<sup>26.</sup> See 49 U.S.C. § 106(g)(A) (Supp. V 2000).

<sup>27.</sup> Id.

Furthermore, the FAA Administrator is the final authority for promulgating all aviation regulations. <sup>28</sup>

There is no doubt that the FAA Administrator has a legal obligation to oversee matters concerning aviation safety and to promulgate necessary regulations relating to the Administration. The fact that infants and toddlérs are being injured in turbulence and during survivable crashes is a serious safety issue plaguing the airline industry. The obvious solution is to restrain children under the age of two in safety seats, significantly reducing the chance of injury or death. Infants and toddlers are not properly protected. By neglecting this aviation safety concern, the Administrator is not fulfilling her job requirements. Since the purpose of the Department of Transportation is to provide safe and efficient transportation, the Secretary of Transportation is similarly responsible.<sup>29</sup> This duty is not being met when it comes to our youngest passengers.

The regulation of child restraint systems on aircraft is long overdue. The FAA has finally recognized its responsibility to protect every single aircraft passenger, including infants and toddlers, by recognizing the need to mandate the restraint systems. However, since the FAA's regulatory proposal for the child restraint system rule has yet to be released, the war has yet to be won. "Lap-travel" is still legal and just as dangerous as it has ever been. Even when the final rule is actually issued, it could take up to a year before the regulation takes effect<sup>31</sup> given the likelihood of unresolved issues regarding its actual implementation.<sup>32</sup>

#### IV. HISTORICAL OVERVIEW

The players in this political struggle are the NTSB, the FAA and the National Highway Transportation Safety Administration. These organizations share responsibility for American transportation safety.

# A. National Transportation Safety Board

The NTSB was established in 1967. It is responsible for investigating civil

- 28. § 106(f)(2)(A)(iii).
- 29. 49 U.S.C. § 101 (1994).
- 30. See Morris, supra note 19.
- 31. Id

<sup>32.</sup> For example, as this Comment will discuss, there are several issues that need to be resolved before airlines can be in compliance: flight attendant training; deciding what to do if a parent tries to bring a child under two on the airplane without a car seat; who will provide the car seat (parent or airline); should there be pre-boarding times (allowing people with small children to pre-board).

aviation accidents and major accidents in other modes of transportation.<sup>33</sup> Furthermore, the NTSB continuously recommends ways of preventing future transportation accidents, relying on past investigational findings and the resulting statistical data analysis.<sup>34</sup>

#### B. Federal Aviation Administration

It took forty-one years of federal regulation of civil aviation for the FAA to come into existence.<sup>35</sup> Within this span of four decades, the embodiment of what the FAA is today was created through progressive legislative acts and various changes in agency and authority makeup.

When the Air Commerce Act of May 20, 1926 was signed into law, it became the "first Federal legislation regulating civil aeronautics." The Act empowered the Secretary of Commerce to foster air commerce, license pilots, issue and enforce air traffic rules, and establish designated airways. The Act also established the Aeronautics Branch of the Department of Commerce, which "assumed primary responsibility for aviation oversight" and focused on certifying pilots and aircraft and developing safety rules. 38

<sup>33. &</sup>quot;Although independent, [the NTSB] relied on the U.S. Department of Transportation (DOT) for funding and administrative support." About the NTSB: History and Mission, supra note 9 (giving history of NTSB). The NTSB's attachment with the Department of Transportation was abolished in 1975, under the Independent Safety Board Act, and "all organizational ties to DOT were severed." Id.

<sup>34.</sup> Id.

<sup>35.</sup> FED. AVIATION ADMIN., A Brief History of the Federal Aviation Administration and Its Predecessor Agencies, at http://www.faa.gov/apa/ history/briefhistory.htm (last visited May 29, 2002) [hereinafter A Brief History of the Federal Aviation Administration]. Before the FAA became known as it is today, it evolved out of various legislative acts or splits of authority and had six distinct "name changes": (1) The Air Commerce Act of May 20, 1926 created the Aeronautics Branch of the Department of Commerce of the mid-to-late 1920's; (2) The Aeronautics Branch became the Bureau of Air Commerce in 1934; (3) The Civil Aeronautics Act in 1938 created the Civil Aeronautics Authority as an independent agency distinct from the Commerce Department; (4) In 1940, the Civil Aeronautics Authority was divided into the Civil Aeronautics Administration and the Civil Aeronautics Board; (5) The Federal Aviation Act of 1958 shifted all of Civil Aeronautics Administration's duties, and some of Civil Aeronautics Board's duties to a "new independent body" called the Federal Aviation Agency; and finally (6) Congress created a cabinet department called the Department of Transportation in 1966 and, under this department in 1967, the FAA was established. Id.

<sup>36.</sup> NAT'L AERONAUTICS & SPACE ADMIN., Aeronautics and Astronautics Chronology, 1925-1929, http://www.hq.nasa.gov/office/pao/History/Timeline/1925-29.html (last visited June 12, 2002); FED. AVIATION ADMIN., FAA Historical Chronology: Civil Aviation and the Federal Government 1926-1996, at http://www.faa.gov/apa/history/ChronoIntro.htm (last visited June 12, 2002) [hereinafter FAA Historical Chronology].

<sup>37.</sup> FAA Historical Chronology, supra note 36.

<sup>38.</sup> A Brief History of the Federal Aviation Administration, supra note 35.

"IT o reflect its enhanced status within the Department of Commerce," the Aeronautics Branch was given the new title of the Bureau of Air Commerce in 1934.<sup>39</sup> However, in the late 1930's, the Civil Aeronautics Act<sup>40</sup> "transferred the federal civil aviation responsibilities from the Commerce Department to a new independent agency the Civil Aeronautics Authority."41 In 1940, President Roosevelt divided the Civil Aeronautics Authority into two distinct organizations: (1) the Civil Aeronautics Administration<sup>42</sup> and (2) the Civil Aeronautics Board.43

As commercial aircraft became more common and more midair collisions occurred, concern for public safety led to the passage of the Federal Aviation Act of 1958.44 This legislation created the Federal Aviation Agency. It functioned "to combat aviation hazards," 45 and to "develop[] and maintain[] common civil-military system of air navigation, and air traffic control."46

Finally, in 1966 Congress created the Department of Transportation. <sup>47</sup> On April 1, 1967, the "FAA became one of several... organizations" subordinate to the Department of Transportation in an effort to "combine major Federal transportation responsibilities."48 It was at this time the Federal Aviation Agency became the Federal Aviation Administration.<sup>49</sup>

### C. National Highway Traffic Safety Administration

The National Highway Traffic Safety Administration ("NHTSA") is one of twelve individual operational administrations in the Department of Transportation, a "cabinet-level executive department of the United States government."50 The NHTSA was established by the Highway Safety Act in

- 39.
- 40. FAA Historical Chronology, supra note 36.
- A Brief History of the Federal Aviation Administration, supra note 35.
- Id. The Civil Aeronautics Authority was entrusted with "[Air Traffic Control], airman and aircraft certification, safety enforcement, and airway development." Id. Its responsibilities were transferred to the Federal Aviation Agency in 1958. Id.
- Id. The Civil Aeronautics Board was responsible for "safety rulemaking, accident investigation, and economic regulation of the airlines." Id. Safety rulemaking was transferred to the Federal Aviation Agency in 1958 and its accident investigation responsibilities were eventually transferred to the organization that became the NTSB. Id.
  - 44. See id.; FAA Historical Chronology, supra note 36.
  - 45. A Brief History of the Federal Aviation Administration, supra note 35.
  - 46. Id.
  - 47. Id.
  - 48. Id.
  - 49. FAA Historical Chronology, supra note 36.
- U.S. DEP'T OF TRANSP., The United States Department of Transportation: A Brief History, at http://isweb.tasc.dot.gov/historian/history.htm (last visited June 12, 2002).

1970 to handle highway administration with regard to highway design, construction, maintenance, and safety.<sup>51</sup> The NHTSA has been a leader in protecting the public by mandating seat belt use and child restraint systems in vehicles.

#### V. HISTORY OF CHILD RESTRAINT SYSTEMS

# A. Child Restraint Systems in Motor Vehicles

All fifty states require that child restraint systems be used in automobiles for infants, toddlers, and some pre-schoolers.<sup>52</sup> The notion of using car seats in automobiles was introduced in the 1960's by the Society of Automotive Engineers ("SAE").<sup>53</sup> Prior to this, seat belts—let alone child restraint systems—were not in widespread use. In the 1930's, several American physicians put lap belts in their vehicles and began "urging manufacturers to

<sup>51.</sup> *Id* 

Nat'l Highway Traffic Safety Admin., Strengthening Child Passenger Safety Laws—Increase Car Seat and Belt Use, Decrease Crash Fatalities and Injuries, STATELEGIS. FACT SHEET (Apr. 2002) ("All 50 States, the District of Columbia, Puerto Rico and the U.S. Territories have child passenger safety laws ('car seat laws'). However, many . . . have significant gaps and exemptions in coverage that diminish the protection that all children need in motor vehicles."). The guidelines for car seat usage in airplanes, according to the American Academy of Pediatrics, are that children should ride rear facing until they are one year old and at least twenty pounds. Am. Acad. of Pediatrics Press Release, supra note 18. Children should ride in a forward facing car seat if they are at least one year old and between twenty and forty pounds. Id. All safety seats should be properly secured on the airplane. Id. Washington State was the pioneer of mandating booster seats for preschool aged children. Nick Charles & Keith Raether, Anton's Law: After Losing Her Son in a Car Accident, a Washington Journalist Helped Pass a Bill Mandating Booster Seats for Kiddies, PEOPLE MAGAZINE, Aug. 20, 2001, at 59, available at 2001 WL 25549639. The law is known as "Anton's Law." Id. Anton was four years old when he was thrown from the vehicle his mother was driving and the boy was killed when the car rolled on top of him. Id. He had been in the front seat using the seatbelt that was installed on the car. Id. Presently, Washington requires children "less than six [years old,] but at least four years of age or weighs less than sixty pounds but at least forty pounds" to be restrained in an approved booster seat. WASH. REV. CODE § 46.61.687(d) (2000). Oregon, Arkansas, South Carolina, and Rhode Island have similar laws. National Survey: Washington Children at Risk, PR NEWSWIRE, Aug. 16, 2001. Most recently, New Jersey mandated that children under the age of eight who weigh less than eighty pounds ride in a booster seat in the back of a car. Nancy Parello, Stricter Car Safety Law for Kids Taking Effect, THE RECORD (Bergen County, N.J.), Nov. 26, 2001, at A01, available at 2001 WL 5279298. In a crash, a bad belt fit can cause critical or even fatal injuries, but a booster seat raises a child in the seat, thus filling the size gap so that the seat belts fit properly. Id.

<sup>53.</sup> Barksdale, supra note 6, at 223.

provide them in all new cars."<sup>54</sup> In the 1950's, the "Colorado State Medical Society publishe[d] policy supporting installation of lap belts in [vehicles]," the "California Vehicle Code [was] amended to require State approval of seat belts before their sale or use," and the "Society of Automotive Engineers ("SAE") appoint[ed] a Motor Vehicle Seat Belt Committee."<sup>55</sup> In the late 1950's and 1960's, the first seatbelts were installed in vehicles, a surge of states adopted or considered seat belt statutes, and the federal government began to take a stance on seat belt use.<sup>56</sup>

Attention turned to the use of child restraint systems in vehicles when the NHTSA and the SAE conducted studies in the early 1970's that disclosed that about one thousand children under the age of five were killed in automobile collisions annually.<sup>57</sup> Another fact from this study showed that ten thousand children were shown to have sustained severe injuries.<sup>58</sup> The NHTSA conclusively determined that most of these injuries and deaths could have been prevented had the children been restrained in the automobiles at the time of impact.<sup>59</sup>

The NHTSA responded to these needless deaths and injuries by developing the Federal Motor Vehicle Safety Standard 213 ("Standard 213") in 1971.<sup>60</sup> This regulation defined how child restraint systems were to be manufactured, tested, and installed.<sup>61</sup> Nine years later, in 1980, NHTSA further modified Standard 213 to "reflect [the] very stringent testing regulations and usage standards for all motor vehicle child restraints."<sup>62</sup> Since 1985, the NHTSA has made it clear that the child restraint system standards in Standard 213 are applicable to all motor vehicles and aircraft.<sup>63</sup> The NTSB, in its role as an

<sup>54.</sup> Sch. Transp. News, *Occupant Restraint: Seat Belt History*, at http://www.stnonline.com/stn/occupantrestraint/seatbelthistory/ (last visited June 23, 2002) [hereinafter Sch. Transp. News].

<sup>55.</sup> *Id.* This website has a chronology of events related to the development and use of motor vehicle seat belts. *Id.* It states that the information provided is from the NTSB Safety Study: *Performance of Lap Belts in 26 Frontal Crashes*, 225-30 (1986). *Id.* 

<sup>56.</sup> Id

<sup>57.</sup> Barksdale, supra note 6, at 223-24.

<sup>58.</sup> Id. at 224.

<sup>59.</sup> *Id.* Volvo was the pioneer of seatbelts in 1956 when they marketed "a 2-point cross chest diagonal belt as an accessory." Sch. Transp. News, *supra* note 54.

<sup>60.</sup> Barksdale, supra note 6, at 224.

<sup>61.</sup> *Id.*; see 49 C.F.R. § 571.213 (2000). The timing of these standards could not have been better because the use of car seats before 1971 would have been difficult since cars manufactured prior to 1972 were not required to have seat belts. Barksdale, *supra* note 6, at 224.

<sup>62.</sup> Barksdale, supra note 6, at 224.

<sup>63.</sup> Child Restraint Systems for Use in Motor Vehicles and Aircraft, 50 Fed. Reg. 15,154 (Apr. 17, 1985) (codified as amended at 49 C.F.R. § 571.213), available at 1985 WL

investigator of aviation incidents, began to correlate the need to protect small children in aircraft, just as NHTSA had done with vehicles. But how did the use of child restraint systems in automobiles pour over into the aviation industry?

# B. Child Restraint Systems in Aircraft

# 1. The Spark Before the Fire

A plane crash near Portland, Oregon in 1978 sparked the NTSB's push for child restraint systems on all aircraft. 64 Since 1979, the NTSB has recommended the use of child restraints in aircraft to protect children during turbulence and "survivable crash landings." Presently, child restraint systems are not required on aircraft even though the FAA has publicly acknowledged that children weighing less than forty pounds are not adequately protected by existing seat belts in aircraft. 66 The FAA's excuse for refusing to mandate such restraint systems is a 1995 study purporting to demonstrate that mandating restraint systems on aircraft "would result in an increased number of deaths and injuries because some passengers would be diverted from air travel to other less safe modes of transportation."

# 2. Children as Ticketed Passengers Today

Currently, children under the age of two do not have to be a ticketed

<sup>146480;</sup> see also 49 C.F.R. § 571.213 (2001) (stating the scope "specifies requirements for child restraint systems used in motor vehicles and aircraft" and the purpose "is to reduce the number of children killed or injured in motor vehicle crashes and in aircraft"); Barksdale, supra note 6, at 224.

<sup>64.</sup> Taylor, supra note 6, at 314; Barksdale, supra note 6, at 209; Don Phillips, Airlines Offer Fare Cuts for Infant Seats: Discounts Aimed at Ensuring Child Safety, WASH. POST, July 3, 1997, at A1, available at 1997 WL 11972031.

<sup>65.</sup> Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 15 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations).

<sup>66.</sup> *Id.* at 13 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.). Children weighing more than forty pounds can be adequately protected by existing safety belts on aircraft. *See id.*; Am. Acad. of Pediatrics Press Release, *supra* note 18 (providing guidelines for restraint systems according to a child's age and weight). Parents can bring a child restraint system on board the aircraft for a child two or older to sit in if they choose. *See id.*; 14 C.F.R. § 121.311 (2002).

<sup>67.</sup> Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 11-12 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.).

passenger<sup>68</sup> to board an aircraft, but rather can be considered a "lap-child"<sup>69</sup> if the parent<sup>70</sup> chooses.<sup>71</sup> Children age two and older are considered under current regulations to be like all other passengers and must be an individual ticket holder and subject to being restrained on the aircraft.<sup>72</sup> This does not mean, however, that a child under the age of two cannot use a child restraint system. If a parent wants to bring a child restraint system on to the aircraft for the child to sit in during the flight, a parent has two options. The first is to purchase a ticket for the child to be assured of being able to use the child restraint system.<sup>73</sup> The second option is to hope that the airline will allow a parent to use an empty seat if there are any available on the flight.<sup>74</sup>

# 3. Children as Ticketed Passengers Historically

Since 1953, Civil Air Regulations have "excluded children under the age of two from mandatory safety regulations [that] require[d] the use of seat belts" on aircraft.<sup>75</sup> Studies prior to the inception of this regulation had concluded that the seats on aircraft were designed to fit adult bodies.<sup>76</sup> As a result, children are not adequately developed physically to be able to fit safely in the contours of an airplane seat with existing seatbelts.<sup>77</sup>

- 68. 14 C.F.R. § 125.211 (2002). This regulation requires:
- (a) (1) An approved seat . . . for each person on board the airplane who is at least 2 years old; and
  - (2) An approved safety belt for separate use by each person on board the airplane who is at least 2 years old [and] . . . .
- (b) A safety belt provided for the occupant of a seat may not be used for more than one person who has reached his or her second birthday.
- 69. 14 C.F.R. § 91.107(a)(3)(i) (2002). This regulation states in pertinent part that a person may "[b]e held by an adult who is occupying an approved seat . . . provided that the person being held has not reached his or her second birthday and does not occupy or use any restraining device." *Id.*
- 70. 14 C.F.R. § 135.128(a) (2002). The responsible party could be a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight. *Id.* 
  - 71. See 14 C.F.R.§§ 91.107, 135.128, 121.311.
  - 72. See 14 C.F.R. § 121.311.
  - 73. See id.
- 74. Of course, this may mean some shuffling of passengers on the flight so that the parent and the child in the restraint system can be next to each other.
- 75. Taylor, supra note 6, at 314; see also Child Restraint Systems on Aircraft: Hearing on H.R. 4025 Before the Subcomm. on Aviation of the Comm. on Public Works & Transp., 101st Cong. 84 (1990) [hereinafter Child Restraint Systems on Aircraft: Hearing on 4025] (statement of Walter S. Coleman, vice president, Operations, Air Transp. Ass'n of Am.).
  - 76. Taylor, supra note 6, at 314.
  - 77. Id.

A few years after NHTSA's development of FMVR 213 in 1971, the FAA began reviewing the feasibility of child restraint systems on aircraft.<sup>78</sup> The FAA determined that there were no restraint systems designed for airplane use that would adequately protect the child from the "severe orientations experienced in a plane crash." Just a short time after this determination, in 1978, a United Airlines plane crashed near Portland, Oregon. Tragically, three unrestrained children died. The fact that they died as a result of being unrestrained brought this issue to the public's attention.

The mid 1980's brought the FAA and NHTSA together after the NTSB recommended that the FAA study child restraint systems on aircraft. <sup>83</sup> The NHTSA and the FAA began collaborative efforts to "develop a common approach to the approval of child restraint for aircraft use." <sup>84</sup> Both organizations recognized that automobiles and airplanes were not identical modes of transportation and thus each had its unique problems associated with child restraint systems. <sup>85</sup> Their common goal was to produce regulations that were consistent with both the airline and automotive industries to prevent confusion among parents and car seat manufacturers regarding which restraint system could be used and where it could be used. <sup>86</sup>

Although this collaboration began in 1984, the stated goal has still not been met. <sup>87</sup> The FAA has stated that its proposed rule for mandating the systems on aircraft had not been issued because of technical and operational issues that had to be resolved in coordination with the Department of Transportation prior to issuing the rule. <sup>88</sup> These technical issues were the same ones that the FAA and NHTSA agreed to resolve in 1984 in order to have one standard regarding

<sup>78.</sup> *Id.* Barksdale, *supra* note 6, at 224. NHTSA first developed Standard 213 in 1971, and it was not until 1973 that the FAA began to study child restraint systems. *Id.*; Taylor, *supra* note 6, at 314.

<sup>79.</sup> Taylor, supra note 6, at 314.

<sup>80.</sup> Id.; Barksdale, supra note 6, at 209.

<sup>81.</sup> Taylor, supra note 6, at 314; Barksdale, supra note 6, at 209.

<sup>82.</sup> Taylor, supra note 6, at 314; Barksdale, supra note 6, at 209.

<sup>83.</sup> Child Restraint Systems, 61 Fed. Reg. 28,416 (June 4, 1996) (codified as amended at 14 C.F.R. §§ 91.107, 121.311, 125.211, 135.128 (2000)), available at 1996 WL 290442.

<sup>84.</sup> Id

<sup>85.</sup> *Id.* Airline seats are unique in that "seatback breakover" can occur on impact and cause a child in a booster seat to be crushed between the booster seat's shield and the adult in the row behind. *Id.* at 28,426. The safest place for a child in an automobile is the back seat-motor vehicle back seats are not designed to break over and a child in the backseat of an automobile is also unlikely to be impacted from behind by an adult. *Id.* at 28,423-24.

<sup>86.</sup> Id. at 28,426.

<sup>87.</sup> See NASDAC BRIEF REPORT: No. A-95-51, supra note 11.

<sup>88.</sup> Id.

using the same child restraint system in both an automobile and on an aircraft.<sup>89</sup>

#### VI. THE PROOF BEHIND THE NTSB'S PUSH

#### A. The Facts Speak for Themselves

With high-profile airplane crashes in the late 1980's and throughout the 1990's, public awareness of airplane safety for children and adults was at an all-time high. In addition to its 1979 recommendation to the FAA, the NTSB issued another formal recommendation in 1990 stating that "all occupants [should] be restrained during take-off, landing, and turbulent conditions, and that all infants and small children [should] be restrained in an approved child restraint system." The NTSB continued to investigate airplane incidents and issue safety findings, documenting situations where child safety seats were used and children survived, and where child restraint systems were not used and caused fatalities during a survivable crash.

Examples of their findings include:

On July 19, 1989, a... [United Airlines] DC-10... en route from Denver, Colorado to Chicago, Illinois, experienced an in-flight emergency following the fragmentation and separation of the No. 2 engine fan disk. The airplane crashed during an attempted emergency landing on runway 22 at Sioux Gateway Airport, Sioux City, Iowa.... Of the 296 persons on board the airplane, 110 passengers and 1 flight attendant were fatally injured. 91

Eleven-month-old unrestrained passenger Sabrina Michaelson was thrown from her mother's arms and later found in an overhead storage bin "approximately 15 rows to the rear from where [her] original seat had been," but only after a passenger heard her cries after he had exited the burning plane. <sup>92</sup> Miraculously, Sabrina only had minor injuries, but would not have been found if her cries had not been heard. <sup>93</sup> Evan Tsao, however, a twenty-two

<sup>89.</sup> Child Restraint Systems, 61 Fed. Reg. at 28,416.

<sup>90.</sup> Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 15 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations).

<sup>91.</sup> NAT'L AVIATION SAFETY DATA ANALYSIS CTR., NASDAC BRIEF REPORT, NTSB Safety Recommendation Letter, No. A-90-78 (May 16, 1995), available at http://nasdac. Faa.gov (last visited Oct. 19, 2002).

<sup>92.</sup> Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 33 (statement of Jan Lohr-Brown, Chief Flight Attendant, United Airlines, Flight 232, Sioux City); Child Restraint Systems on Aircraft: Hearing 4025, see supra note 75, at 76 (statement of Lori Michaelson, passenger, United Airlines, Flight 232, Sioux City).

<sup>93.</sup> Child Restraint Systems on Aircraft: Hearing on 4025, see supra note 75, at 76

month-old unrestrained passenger on this flight, died in that same crash. <sup>94</sup> Evan was also thrown, but his mother was unable to locate him before exiting the wreckage. <sup>95</sup>

In September 1992, a Piper PA-30 entered an uncontrolled descent and crashed at Broussard, Louisiana. Parts of both wings and both horizontal stabilizers separated before the airplane struck the ground . . . .

... a 4 year-old boy and a 10-month-old girl who occupied the bench seat survived. The father died.

The Safety Board determined that the children survived because they occupied the child restraint system. 96

Another incident, which was investigated by the NTSB in 1994, involved

[a]n unrestrained infant [who] was killed during a [USAir] DC-9 accident near [the] Charlotte, [North Carolina] airport in July 1994. Thirty-seven passengers received fatal injuries, including a 9-month-old in-lap infant who was held by her mother in the last row of the cabin. The child's mother was unable to hold on to the child during the impact sequence, and the baby died of massive head injuries. The mother survived with fractures to her elbow and arm. 97

Furthermore, in "an MD-80 accident at Pensacola, Florida on July 6, 1996 ... [a] family that used the [child restraint system] was seated in a row directly behind a row in which two passengers sustained fatal injuries." The parents testified before Congress that,

[w]hen the engine exploded . . . debris was flying everywhere . . . . All I really remember, after hearing an extremely loud explosion, was seeing a rather large section of interior paneling of the plane land on Emma's car seat. It landed so that the wings of the car seat protected her . . . . Had Emma not been in a child safety seat, there is absolutely, positively, no doubt in our minds that the chunk of debris would have hit Emma and resulted in a serious injury or fatality. <sup>99</sup>

<sup>(</sup>statement of Lori Michaelson, passenger, United Airlines, Flight 232, Sioux City).

<sup>94.</sup> Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 32 (statement of Jan Lohr-Brown, Chief Flight Attendant, United Airlines, Flight 232, Sioux City).

<sup>95.</sup> Id. at 32.

<sup>96.</sup> Id. at 16 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations).

<sup>97.</sup> Id. at 15.

<sup>98.</sup> Id. at 88.

<sup>99.</sup> Id. at 5 (statement of David Tourtellotte, witness).

Finally in 1999, an "American Airlines flight 1420 crashed in Little Rock, Arkansas, [and] a 2-year-old child, seated in a properly installed child restraint, received only minor injuries." <sup>100</sup>

But even before these more recent accidents, advocacy organizations, as well as the NTSB, were on the heels of the FAA. <sup>101</sup> Congress and the White House were also trying to ensure that all passengers, regardless of age and weight, were restrained on aircraft. <sup>102</sup> The FAA's inaction on this important public safety issue led Congress and the White House to pressure the FAA and require it to put words into action. Congress and the White House must have determined that if the FAA was not going to address this public safety concern, then they would do so on their own terms.

## B. The Legislative Effort Begins

The legislative effort began seven months after the Sioux City, Iowa crash on July 19, 1989.<sup>103</sup> One hundred eighty-four people survived the crash, three of whom were under the age of two, <sup>104</sup> and yet 112 people died, including one unrestrained young child.<sup>105</sup> This was an opportune time for the NTSB, child advocacy groups, and Congress to step forward and educate the public of the need to restrain children on aircraft.<sup>106</sup>

<sup>100.</sup> Chairman Hall's Child Passenger Safety Remarks, supra note 1.

<sup>101.</sup> See Child Restraint Systems on Aircraft: Hearing on 4025, supra note 75, at V.

<sup>102.</sup> See discussion infra Part VIII.A; Exec. Order No. 13,015, 3 C.F.R. 213 (1996) (creating a White House Commission on Aviation Safety and Security).

<sup>103.</sup> Bill Summary and Status for the 101st Congress, at http://thomas.loc.gov (last visited June 23, 2002). The first piece of legislation was introduced in November of 1989. Id.

<sup>104.</sup> Tom Bower, Captain of Ill-Fated Flight Recounts Survival Reasons, SAN ANTONIO EXPRESS-NEWS, Sept. 2, 1995, available at 1995 WL 9500711; FAA's Final Rule Won't Make Infant-Restraint Usage Mandatory, AIR SAFETY WK., Sept. 21, 1992, available at 1992 WL 2252885.

<sup>105.</sup> FAA's Final Rule Won't Make Infant-Restraint Usage Mandatory, supra note 104.

<sup>106. &</sup>quot;The Air Transport Association (ATA), the Aviation Consumer Action Project (ACAP) and the Los Angeles Area Child Passenger Safety Association have formally petitioned the FAA to initiate rulemaking to require mandatory restraints for infants under two years old." Child Restraint Systems on Aircraft: Hearing on H.R. 4025, supra note 75, at V.

#### VII. LIGHTING THE FIRE UNDERNEATH THE FAA

# A. Take I: Regulate, Not Educate 107

The 1990's brought a wave of Congressional legislation in the area of mandating child restraint systems on aircraft. Between 1989 and 1998, a total of eleven bills were introduced, primarily by Senators Christopher Bond and Patty Murray and Representatives Jim Lightfoot and Peter DeFazio. 108 All but one of the House bills were inundated with co-sponsors. 109 However, this support was insufficient to get the legislation passed. This powerful legislative effort was most likely Congress's response to the FAA's refusal to meet its responsibility to protect passengers. Congress's desire to intervene and resolve a legitimate public safety concern was rooted with good intentions. 110

Every Senate bill made it only as far as the Senate's Commerce, Science and Transportation Committee, with the exception of one bill during the 101st Congress. The Senate passed that bill and it was sent to the House, only to die in the Subcommittee on Aviation. 111 Each of the House bills died in committee

<sup>107.</sup> This is the opposite of the FAA's stated policy regarding educating the public on the need for children to be in restraint systems on aircraft: Educate, Not Mandate!

Since a Federal mandate could cause more deaths and injuries than it would prevent, the FAA is committed to the development of non-regulatory methods to achieve the goal of securing children in the appropriate restraint device in aircraft. On this issue, the FAA, the Board, and the industry, need to educate—not to regulate.

NASDAC BRIEF REPORT: No. A-95-51, supra note 11. Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 14 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.).

<sup>108.</sup> See infra notes 111-16 and accompanying text.

<sup>109.</sup> Bill Summary and Status for the 101st Congress, *supra* note 103. H.R. 4025 had 48 co-sponsors, H.R. 2063 had 53 co-sponsors, H.R. 1533 had 47 co-sponsors, H.R. 1309 had 41 co-sponsors, and H.R. 1141 had none. *Id.* 

<sup>110.</sup> Chairman Duncan said,

The issue, to boil it down very simply: some airline attendants and others feel that this is very much a safety-related issue and that we need to do this for the protection of small children. Others feel that if we do this, because of the great expense of airline tickets for many trips, that this would mean that some families or many families would drive instead of flying, and, of course, our highways are much, much more dangerous than our aviation system, and so we need to look very closely at this.

Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 1 (statement of Hon. John J. Duncan, Jr., Chairman of the Subcomm. on Aviation).

<sup>111.</sup> Bill Summary and Status for the 101st Congress, *supra* note 103. Senate bill 1913 was introduced by Senator Bond on Nov. 17, 1989, passed the Senate vote on Aug. 2, 1990 and was sent to the Subcommittee on Aviation on Sept. 17, 1990. *Id.* 

as well, including the protégé bill introduced in 1990. <sup>112</sup> The 102nd session saw the introduction of two bills, both of which only got as far as committee referral. <sup>113</sup> Two more bills were introduced in the 103rd session only to die in committee again. <sup>114</sup> However, the fire was not out, as Senator Bond and Representative Lightfoot tried to push their legislation through the process again. The 104th Congress saw the introduction of two more bills. <sup>115</sup> The last of these legislative movements occurred during the 105th Congressional session. Three bills were introduced, but again all of them died in committee. <sup>116</sup> All of these legislative efforts to mandate child restraint systems on aircraft failed.

# B. Take II: FAA Begins to Respond

The FAA never responded to the NTSB's 1979 request for the FAA to expedite research toward a rule-making objective so that children would be required to be restrained. However, about eight months after the 1989 Sioux City crash, and one month after the first legislation was introduced, the FAA issued a Notice of Proposed Rulemaking to require airlines to *allow* approved restraint systems on all aircraft. Before this mandate, there was no guarantee that an airline would allow a passenger to bring a child restraint system on board. The FAA's decision came ten years after the NTSB's first

<sup>112.</sup> *Id.* House bill 4025 was introduced by Representative Lightfoot on Feb. 20, 1990, and a hearing was held with the Subcommittee on Aviation on July 12, 1990, with no further action noted. *Id.* 

<sup>113.</sup> Bill Summary and Status for the 102nd Congress, at http://thomas.loc.gov (last visited June 23, 2002). Senate bill 1877 was introduced by Senator Bond on October 25, 1991 and was referred to the Senate Commerce, Science, and Transportation Committee. Id. Representative Lightfoot introduced House bill 2063 on April 24, 1991, which made it as far as the Subcommittee on Aviation. Id.

<sup>114.</sup> Bill Summary and Status for the 103rd Congress, at http://thomas.loc.gov (last visited Dec. 8, 2001). Senate bill 1039 was introduced by Senator Bond on May 27, 1993 and House bill 1533 was introduced by Representative Lightfoot on March 30, 1993. *Id.* 

<sup>115.</sup> Bill Summary and Status for the 104th Congress, at http://thomas.loc.gov (last visited June 23, 2002). Senate bill 2139 was introduced on September 27, 1996 by Senator Patty Murray and House bill 1309, was introduced by Representative Lightfoot on March 23, 1995. *Id.* 

<sup>116.</sup> Bill Summary and Status for the 105th Congress, at http://thomas.loc.gov (last visited June 23, 2002). Senate bill 398 was introduced by Senator Murray on March 5, 1997, Representative Peter De Fazio introduced House bill 754 on February 13, 1997 and also House bill 1141 on March 20, 1997. *Id.* 

<sup>117.</sup> Child Restraint Systems Requirement: Hearing on 1309, supra note 10 at 41-42 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations).

<sup>118.</sup> Child Restraint Systems on Aircraft: Hearing on H.R. 4025, supra note 75, at V. 119. See id.

recommendations and only after Congressional legislation had begun.<sup>120</sup> The FAA was likely not acting on its own initiative, but rather in response to a compilation of pressures from Congress, child advocacy group petitions, and, arguably, the public's awareness of the importance of this issue.<sup>121</sup> Had the FAA's actions been prompted by the best interest of the public, and not for publicity, the FAA would have taken measures toward protecting young fliers long before the aftermath of the Sioux City crash and subsequent Congressional legislation.<sup>122</sup>

Shortly after the FAA's decision to allow child restraint systems on aircraft by parental choice, the NTSB made its second formal recommendation to the FAA mandating that all passengers "be restrained during take-off, landing and turbulent conditions, and that all infants and small children be restrained in an approved child restraint system." The NTSB may have seen the FAA's actions as a desire to protect young travelers and thus issued its second recommendation in the hopes that the two could converge their dissimilarities. However, convergence did not occur. Over the next three congressional sessions efforts at passing legislation to mandate the restraint systems again failed miserably. 124

Soon after the NTSB's second recommendation, a flurry of media attention focused on the FAA's refusal to mandate the recommendations and the growing statistics that showed that children who were restrained on aircraft were surviving turbulent conditions and survivable crash landings. <sup>125</sup> These efforts, however, were not reaching the end result of affording child travelers protection on airplanes.

<sup>120.</sup> Id.

<sup>121.</sup> See id.

<sup>122.</sup> See Restraint Systems Requirement: Hearing on 1309, supra note 10, at 42 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations). The FAA's stance to not allow airlines to restrict the use of child restraints came in 1990, eleven years after the FAA's first recommendation to require the restraints in 1979. Id. at 41.

<sup>123.</sup> Id.

<sup>124.</sup> See supra notes 111-16 and accompanying text. Congress had, up until this time, already introduced six bills and it would introduce five more over the next two congressional sessions. Also, in 1992, Senator Bond introduced legislation because of his personal ties to the issue. When Governor of Missouri, he tried to board a plane with a small child and the gate attendants refused to let him bring a restraint system on board. Betsy Wade, Airline Policies on Child Safety Seats All Over Map, PORTLAND OREGONIAN, Jan. 5, 1992, at T09, available at 1992 WL 6795388.

<sup>125.</sup> See generally Associated Press, FAA Takes New Look at Safety of Unrestrained Babies on Planes, LAS VEGAS REV.-J., Apr. 12, 1998, at 27A, available at 1998 WL 7213506; Faye Bowers, Child Safety vs. Higher Cost of Travel HARD CHOICES, CHRISTIAN SCIENCE MONITOR, Mar. 21, 1997, at 1, available at 1997 WL 2800012; FAA's Final Rule Won't Make Infant-Restraint Usage Mandatory, supra note 104; Wade, supra note 124.

What eventually drove the FAA toward action was the crash of TWA Flight 800 and the many other devastating plane crashes that occurred during the late 1990's. <sup>126</sup> In 1996, 380 individuals died in airline crashes <sup>127</sup> and airline safety became a pressing public concern as more incidents occurred. This public concern resulted in the creation of the White House Commission on Aviation Safety and Security.

# VIII. THE WHITE HOUSE COMMISSION ON AVIATION SAFETY AND SECURITY

## A. Historical Background

Responding to the tragic crash of TWA flight 800,<sup>128</sup> President Clinton issued an Executive Order on August 22, 1996 establishing the White House Commission on Aviation Safety and Security, with Vice President Gore serving as Chairman.<sup>129</sup> The Commission's purpose was to "advise the President on matters involving aviation safety and security" and to recommend "a strategy designed to improve aviation safety and security."<sup>130</sup> The Commission's purpose was to be fulfilled and the Commission's existence concluded no later than February 22, 1997.<sup>131</sup>

The purposes of the Commission developed out of the many airline disasters that had occurred causing "public concern over the safety and security of the U.S. airline industry." The 380 people who died in 1996 from aviation accidents was the "highest number in ten years." The culmination of intensive research, inquiry and deliberations was enveloped in the Commission's extensive recommendation report. 134

<sup>126.</sup> Robert W. Hahn, The Economics of Airline Safety and Security: An Analysis of the White House Commission's Recommendation, 20 HARV. J.L. & PUB. POL'Y 791, 794 (1997).

<sup>127.</sup> Id. at 794.

<sup>128.</sup> Hahn, supra note 126 at 792; Lisa Anderson et al., TWA Jet Explodes Near New York 229 Feared Dead on Flight to Paris, CHI. TRIB., July 18, 1996, at 1, available at 1996 WL 2690856. On July 17, 1996, TWA flight 800 crashed off of the coast of Long Island, NY en route to Paris. Anderson, supra. It departed from John F. Kennedy Airport in New York. Id. All 229 passengers perished. Id.

<sup>129.</sup> Exec. Order No. 13.015, 3 C.F.R. 213 (1996).

<sup>130.</sup> *Id*.

<sup>131.</sup> Id.

<sup>132.</sup> Hahn, supra note 126, at 794.

<sup>133.</sup> Id.

<sup>134.</sup> WHITE HOUSE COMM'N FINAL REPORT, *supra* note 3. The White House Commission Report on Aviation Safety and Security was released on Feb. 12, 1997, five months after the Commission was established. *Id.* 

# B. White House Recommendations for Child Restraint Systems on Aircraft

The White House Commission on Aviation Safety and Security Final Report was released on February 12, 1997. The report recommended that the FAA eliminate regulations allowing children under the age of two to travel without the use of a child restraint system. <sup>135</sup> Specifically, the Commission stated:

Current regulations require that all passengers over the age of two have their own seats, and that those seats are equipped with FAA-approved restraints. The Commission believes that it is inappropriate for infants to be afforded a lesser degree of protection than older passengers. The FAA should revise its regulations to require that all occupants be restrained during takeoff, landing, and turbulent conditions, and that all infants and small children below the weight of 40 pounds and under the height of 40 inches be restrained in an appropriate child restraint system, such as child safety seats, appropriate to their height and weight. The Commission also notes and commends the FAA's ongoing efforts in collaboration with major airframe and seat manufacturers to develop standards for integrated child safety seats. <sup>136</sup>

The Commission did not provide any comment as to what the consequences would be if the FAA did not heed their recommendation. It was appointed to identify the inadequacies of aviation safety and security in the United States and present potential solutions to these shortcomings. <sup>137</sup> What the Commission found was that the protection of children under the age of two on aircraft was grossly inadequate, requiring immediate attention.

Until this time, the FAA had been winning the battle, as evidenced by nineteen years of putting off the NTSB's recommendations of mandating the systems on aircraft, even though the FAA publicly acknowledged that child restraint systems should be used by all children on aircraft. 138 Pressures had

<sup>135.</sup> *Id.* This was in a letter from Vice President Gore, dated Feb. 12, 1997, that was attached to the beginning of the White House Commission on Aviation Safety and Security Final Report. *Id.* The letter apprised President Clinton of the progress the Commission made in carrying out his Executive Order. *Id.* 

<sup>136.</sup> Id. M. Victoria Cummock, who was a Commissioner for the White House Commission on Aviation and Security, member, FAA Security Baseline Work Group, and President, Families of Pan Am 103/Lockerbie, submitted her dissent with the Final Report of the White House Commission on Aviation Safety and Security in regard to Recommendation 1.13. Id.

<sup>137.</sup> Exec. Order No. 13,015, 3 C.F.R. 213 (1996).

<sup>138.</sup> See Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 45-47 (statement of Peggy Gilligan, Deputy Associate Administrator for the Regulation and

come from the NTSB advocating and formally recommending that the FAA mandate restraint systems<sup>139</sup> and from numerous child advocacy groups speaking on behalf of children under the age of two.<sup>140</sup> Congress had failed to mandate restraint systems through legislation. The culmination of these efforts was not enough to cause the FAA to willingly discard its stance on child restraints.

All of these organizations were calling for nearly identical statutory language, but it was not until the White House Commission jumped into the ring that the FAA budged from its position of not mandating child restraint systems.<sup>141</sup>

In 1998, after nineteen years<sup>142</sup> of arguing over the practicality and feasibility of mandating child restraint systems on aircraft, the Federal Aviation Administration turned over a new leaf.<sup>143</sup> The FAA submitted to the Commission's report urging the use of child restraint systems for passengers under the age of two and finally let go of their long-stated argument against mandating the restraint systems.

# C. The White House Said Jump, and the FAA Asked "How High?"

In 1998, the Federal Aviation Administration shifted their stance and began seeking "public comment on issues relating to the use of child restraint systems . . . in aircraft during all phases of flight, [including] . . . taxi, takeoff, landing,

Certification, Fed. Aviation Admin.). The nineteen years spanned from the NTSB's first recommendation in 1979 after the United Airlines Portland accident until the day of the release of the Commission's recommendations on February 12, 1997. *Id.* at 41 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations).

<sup>139.</sup> *Id.* at 41 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations).

<sup>140.</sup> Id. at 71 (statement of Patricia Friend, International President of the Association of Flight Attendants, AFL-CIO); see Protecting Children in Traffic, supra note 10, at 6.

<sup>141.</sup> See generally Protecting Children in Traffic, supra note 10.

<sup>142.</sup> See Child Restraint Systems Requirement: Hearing on 1309, supra note 10, at 41 (statement of Barry Sweedler, Director of NTSB Office of Safety Recommendations); see also NTSB Recommendations to FAA and FAA Responses Report; Report No. A-83-1 (commenting that the "the area[] of transportation crash protection most neglected... is that for infants and small children during air travel"), at http://nasdac.faa.gov/asp/fw\_searchus.asp (type in "child restraint system") (last visited Dec. 7, 2001).

<sup>143.</sup> See NASDAC BRIEF REPORT: No. A-95-51, supra note 11.

or any other time the seat belt sign is illuminated."<sup>144</sup> This action came exactly 364 days after the White House Commission on Aviation Safety and Security's recommendation was released.<sup>145</sup>

The comment period was the first step the FAA needed to take in order to adopt regulations addressing the safety of children aboard aircraft. <sup>146</sup> The FAA sought comments from the aviation industry, airlines, and the general public on how to best mandate child restraint systems on aircraft.

On the same day that the White House Commission Report debuted, the FAA released a statement pledging enthusiastic agreement to work with the White House, Congress, and the aviation community to quickly implement the recommendations contained in the report. <sup>147</sup> Apparently, the FAA realized that federal policy might be changed by Congress and the White House if the agency did not affirmatively act on the same issue that had been put off for decades.

The FAA had two feasible options: (1) heed the recommendation to mandate or (2) continue to educate and strongly recommend the use of child restraint systems on aircraft, as it had been doing. 148 Although there was no explicit penalty for not heeding the Commission's recommendation, the FAA likely recognized the possible ramifications. If the FAA followed option two, the most likely outcome would have been that the White House would have pressed Congress to pass the same bills that had died in committee before the release of the Commission Report.

This would not have been in the best interest of the FAA, as it would have lost control of the regulatory rule making process within the aviation industry. Congressional representatives would have been pursuing the interests of their constituents, not the FAA. Knowing that it was not going to be able to fend off the White House, the FAA wisely decided to keep control of the situation by using their administrative power to regulate the child restraint systems in the

<sup>144.</sup> Child Restraint Systems ANPRM, supra note 2.

<sup>145.</sup> See WHITE HOUSE COMM'N FINAL REPORT, supra note 3. The White House Commission Report on Aviation Safety and Security was released on February 12, 1997, five months after the Commission was established. Id.; Child Restraint Systems ANPRM, supra note 2, at 4.

<sup>146.</sup> See 14 C.F.R. §§ 91, 121, 125, 135 (2002).

<sup>147.</sup> Press Release, Fed. Aviation Admin., FAA Seeks Public Comment on Child Restraint Systems (Feb. 12, 1998), at http://www.faa.gov/apa/pr/feb/apa2098.html (last visited Oct. 21, 2002).

<sup>148.</sup> See Child Restraint Systems: Hearing on H.R. 1309, supra note 10, at 32-40 (statement of Peggy Gilligan, Deputy Associate Administrator for Regulation and Certification, Fed. Aviation Admin.). The FAA had implemented "Off laps and Intro Straps" in June 1995. Id. The FAA also has a "Turbulence Happens" campaign on their website to educate the public on the dangers of turbulence. Fed. Aviation Admin., Turbulence Happens, at http://www.faa.gov/apa/TURB/Glance/glanbar.htm (last visited May 24, 2002).

manner preferred by the FAA and the airline industry. Thus, the ANPRM was announced.

#### IX. COINCIDENCE OR SMART POLITICS

It was no coincidence that the Commission's recommendation came out one day prior to Representative DeFazio's bill, H.R. 754, to amend Title 49 of the United States Code "to require the use of child safety restraint systems approved by the Secretary of Transportation on commercial aircraft." H.R. 754 was the aviation child restraint bill that had the most co-sponsors, eightysix, since legislation had piqued in this arena. The effort that had gone into developing the bill by both Representative DeFazio and his staff, occurred long before the release of the Commission's report and realistically, before the creation of the Commission. As such, the legislator would have developed a target date for the introduction of H.R. 745, but before the bill could be introduced great effort would have had to go into research, writing, and lobbying for its success. Thus, the release date of the Commission's report was a shrewdly calculated political decision, ostensibly to force the FAA into submission and make it address a legitimate long overdue public policy concern.

#### X. THE BATTLE RAGES ON

The FAA is still winning. In January 2001, nearly three years after the FAA released the ANPRM, <sup>153</sup> they announced to the NTSB that a Notice for Rulemaking for child restraint systems had been submitted for "executive review." <sup>154</sup> However, the FAA stung again by announcing at the same time that

<sup>149.</sup> See Bill Summary and Status for the 105th Congress, supra note 116. Representative Peter DeFazio introduced H.R. 754 on February 13, 1997. Id. The Commission's recommendations were released February 12, 1997. WHITE HOUSE COMM'N FINAL REPORT, supra note 3.

<sup>150.</sup> Bill Summary and Status for the 105th Congress, supra note 116.

<sup>151.</sup> The Commission's recommendations were released February 12, 1997 and the bill, February 13, 1997. *Id.*; WHITE HOUSE COMM'N FINAL REPORT, *supra* note 3. There is not a remote possibility that these bills could have been ready to be introduced on the floor with one day, or even twenty-three days, notice.

<sup>152.</sup> The Commission was created on August 22, 1996 with the final report due no later than six-months later. Exec. Order No. 13,015, 3 C.F.R. 213 (1996). The report was released February 12, 1997, ten days shy of its ordered due date. WHITE HOUSE COMM'N FINAL REPORT, *supra* note 3.

<sup>153.</sup> See Child Restraint Systems ANPRM, supra note 2.

<sup>154.</sup> NASDAC BRIEF REPORT: No. A-95-51, supra note 11.

due to "technical issues" the NPRM could not be officially released. These "technical issues" had arisen from the FAA's and NHTSA's desire to create child restraint systems that were compatible in both cars and airplanes. Months later, as of July 2001, the latest known communication between the NTSB and the FAA, the NPRM still had not been released.

# XI. THE FUTURE OF TRAVELING WITH A "LITTLE ONE"

Even after the FAA actually releases its NPRM, there will be mountains of issues that must be resolved prior to the final rule going into effect or the result could be disastrous. Thus, it could likely be a year or more after the final rule is issued before a mandate will take effect.

Even with all the potential issues, there is no reason that resolution cannot occur efficiently and effectively in a way that is consistent with the airline industry. This, of course, would require the airline industry to collaborate and develop policies that are critical to the successful implementation of this newly established regulation. This is not an impossible feat, as was proven by the airline industry's efforts following the September 11, 2001 tragedies. Additionally, as the NTSB has stated, there is no reason to think that the airlines will let \$6 billion dollars, over ten years, fly out the window as passengers with children under the age of two chose automobile travel over flight. 158

Indeed, under the present system, travel by air is more convenient and affordable for the parents of children under two. Nevertheless, once a child reaches the age of two, that child must have her own seat because lap travel is prohibited. By being accommodating toward children under the age of two, however, airlines will attract parents and establish that the airline cares about providing family-friendly travel. The airline might exhibit this concern by providing reduced fares for restraint system travelers, early pre-boarding, and assistance to the parents while getting the restraint system secured in the airplane seat.

#### XII. EDUCATE AND COLLABORATE

Airlines will need to train and educate pilots, flight attendants, and ticketing agents about the new regulation. They will have to create innovative

<sup>155.</sup> Id.

<sup>156.</sup> See supra notes 83-86 and accompanying text.

<sup>157.</sup> See NASDAC BRIEF REPORT: No. A-95-51, supra note 11.

<sup>158.</sup> Id.

ways to effectively advertise and notify parents of little travelers that lap-travel is no longer allowed, and parents will need education on which child restraint systems are approved for aircraft travel. 159

Furthermore, residual issues, such as who will provide the restraint system, the parent or the airline, will have to be addressed. DME Corporation has manufactured a child restraint system, the PlaneSeat, that is specifically made for the dimensions of an aircraft seat and to the specifications as outlined by NHTSA and the FAA. <sup>160</sup> The PlaneSeat is compact and easily stored when not in use. <sup>161</sup> It fits in an existing airline seat and is secured by the aircraft seat belt. <sup>162</sup> The child is placed into the PlaneSeat and secured by a "single release harness" similar to common automobile child restraint systems. <sup>163</sup> It is so versatile that the one design adapts to fit a child from birth weight up to forty pounds. <sup>164</sup> Ordered individually, one PlaneSeat costs between \$850 and \$967. <sup>165</sup> This seat is ideal for airlines because the dimensions are specific to an aircraft seat. It is versatile enough to accommodate an array of ages and weights and the seat is easy to install and remove. <sup>166</sup>

#### XIII. WHERE DOES THIS LEAVE LAP-TRAVEL TODAY?

Lap travel is legal as of February 1, 2002 and will continue to be until the FAA gets its NPRM past executive review and officially recognized. <sup>167</sup> It took approximately fifty years to get motor vehicle seat belt and child restraint laws on the books in the United States. It is shameful that any child should suffer serious injury or death in a motor vehicle considering the time, effort, and

- 161. Id.
- 162. Id.
- 163. Id.
- 164 13
- 165. Email from Diann Rattner, Marketing Communications, DME Corporation (Nov. 26, 2001) (on file with Gonzaga Law Review).
  - 166. DME Corp., supra note 160.

<sup>159.</sup> See 14 C.F.R. §§ 91.107, 135.128 (2002); FAA Proposes Withdrawing Approval of Child Restraints, Bus. & Com. Aviation, Oct. 1, 1995, at 28, available at 1995 WL 13341074; Child Booster Seats and Restraint Harnesses are Banned, Bus. & Com. Aviation, Aug. 1, 1996, at 32, available at 1996 WL 10192686.

Furthermore, each airline will also have to develop its own policy on how to handle a parent who is using an illegal restraint system such as a backless booster seat, lap belt, or a snuggly.

<sup>160.</sup> DME Corp., CRS-2000 PlaneSeat Child Restraint Device, at http://www.dmecorp.com/filaviation/fil-av9-crd/av9-crd\_desc.html (last visited May 20, 2002).

<sup>167.</sup> The NPRM has not been published in the Federal Register through October 2001, nor is the NPRM on the FAA website, *at* http://www.faa.gov (last visited May 20, 2002) where NPRM's are accessible by the public.

money that has gone into educating the public about the dangers of children being unrestrained in a vehicle—or even a child under the age of twelve being in the front seat of a vehicle.

There is no doubt that education alone was not sufficient in the arena of motor vehicles. Even though the entire United States and its territories have mandatory seatbelt and child restraint laws, children and adults still die or suffer serious injuries from motor vehicle collisions because they do not wear seatbelts. <sup>168</sup> Similarly, these same struggles will occur with child restraint systems on aircraft for children under the age of two, and some of this has already been evident. Education alone was not enough for vehicle travel and it is not enough for airline travel as evidenced by the recent instances of unrestrained children being injured on aircraft. <sup>169</sup>

With the terrorist events of September 11th, there has recently been testimony before Congress on implementing federal regulations needed to ensure aviation security in the future. <sup>170</sup> In particular, it has been suggested that passenger carry-ons be limited to only one piece of baggage no larger than nine inches by fourteen inches by twenty-two inches with the possibility of also allowing a passenger to bring on a "personal bag." However, child restraint systems are being recommended as being excluded from this size restriction in order to end the dangers of lap travel. <sup>172</sup>

Furthermore, under the new security laws, crew training will allow for defense of the aircraft, including pilots performing evasive moves, in the event terrorists attempt to take control of a plane. The Children who are lap travelers will likely incur serious injuries due to the turbulent conditions of such maneuvers, flying from "their parent's [sic] grips." It is now more

<sup>168.</sup> See, e.g., The Associated Press, Parents Indicted: Unrestrained Son Died in Car Wreck, SEATTLE TIMES, Feb. 9, 2000, at B1, available at 2000 WL 5519929; Seattle Times Staff, 2-Year-Old Boy Injured After Being Thrown From Moving Car, SEATTLE TIMES, May 10, 1998, at B3, available at 1998 WL 3152346.

<sup>169.</sup> See supra notes 90-95, 97 and accompanying text; Child Restraint Systems on Aircraft: Hearing on H.R. 4025, supra note 75 at 49 (statement of Susan Coughlin, Nat'l Transp. Safety Bd).

<sup>170.</sup> Regulations to Improve Air Security: Testimony Before the Subcomm. on Energy Policy, Natural Resources and Regulatory Affairs of the House Comm. on Government Reform on "Federal Regulations Needed to Ensure Aviation Security, 107th Cong. (2001) (statement of Patricia A. Friend, International President, Association of Flight Attendants, AFL-CIO), available at 2001 WL 26187908.

<sup>171.</sup> Id.

<sup>172.</sup> Id.

<sup>173.</sup> Id.

<sup>174.</sup> *Id*.

imperative than ever that children under the age of two be restrained on aircraft for the purposes of airline security and safety.<sup>175</sup>

Getting the FAA to mandate child restraint systems on aircraft remains an uphill battle. Congress and the White House have spoken, child advocates have lobbied heavily, and the NTSB and NHTSA have used their power to persuade the FAA to do the right thing in protecting the youngest passengers. Although there have been great strides forward, the efforts of the child advocates have failed because lap travel is still legal and as long as children travel on laps, needless injuries and deaths will occur.

#### XIV. CONCLUSION

We cannot let our children die needlessly. We know the outcome when children are left unrestrained in motor vehicle collisions, turbulent flights, and survivable crashes. <sup>176</sup> There is concrete proof that children can survive injuries from some airplane crashes and turbulence as long as these children are properly restrained. There is also concrete proof that children cannot survive injuries from crashes and turbulence when they are not properly restrained. There is no solution other than to enforce mandatory safety restraints for children. We made it public policy to protect children in vehicles when we discovered the injuries they received while unrestrained were preventable. We protect children going 70 m.p.h., and it is now time that we protect them<sup>177</sup> at 300 m.p.h.

<sup>175.</sup> *Id*.

<sup>176.</sup> Child Restraint Systems on Aircraft: Hearing on H.R. 4025, supra note 75, at 49 (statement of Susan Coughlin, Nat'l Transp. Safety Bd).

<sup>177.</sup> Child Restraint Systems Requirement: Hearing on H.R. 1309, supra note 10, at 85 (statement of Jan Lohr-Brown, Flight Attendant, United Airlines, Flight 232, Sioux City).