

1999

ER in the Skies: In-Flight Medical Emergencies

Robert F. Ruckman

Recommended Citation

Robert F. Ruckman, *ER in the Skies: In-Flight Medical Emergencies*, 65 J. AIR L. & COM. 77 (1999)
<https://scholar.smu.edu/jalc/vol65/iss1/6>

This Article is brought to you for free and open access by the Law Journals at SMU Scholar. It has been accepted for inclusion in Journal of Air Law and Commerce by an authorized administrator of SMU Scholar. For more information, please visit <http://digitalrepository.smu.edu>.

ER IN THE SKIES: IN-FLIGHT MEDICAL EMERGENCIES

ROBERT F. RUCKMAN* **

TABLE OF CONTENTS

I. INTRODUCTION.....	78
II. THE AVIATION MEDICAL ASSISTANCE ACT OF 1998.....	84
A. MEDICAL KIT EQUIPMENT AND TRAINING	85
B. REPORTS REGARDING DEATHS ON AIRCRAFT	85
C. DECISION ON AUTOMATIC EXTERNAL DEFIBRILLATORS	86
D. LIMITATION OF LIABILITY.....	89
1. <i>Liability of Air Carriers Under the AMAA</i>	89
2. <i>Liability of Individuals Under the AMAA</i>	90
E. APPLICATION TO U.S. CARRIERS	91
III. LIABILITY OF AIR CARRIER FOR IN-FLIGHT MEDICAL EMERGENCIES	91
A. INTRODUCTION	91
B. LIABILITY OF AIRLINES FOR IN-FLIGHT MEDICAL EMERGENCIES ON INTERNATIONAL FLIGHTS	92
1. <i>Was there an "accident" under Article 17?</i>	92
2. <i>Is the Warsaw Convention exclusive or may the passenger pursue state law remedies?</i>	97
C. LIABILITY ON DOMESTIC FLIGHTS.....	98
D. PLAINTIFF'S THEORIES OF LIABILITY	99
1. <i>Failure to Render Assistance</i>	99
2. <i>Failure to Divert and/or Land as Soon as Possible</i>	100

* A partner with the Dallas office of Jackson Walker L.L.P., concentrating in aviation litigation and product liability, B.A. Trinity University 1967; J.D. Vanderbilt University School of Law 1970.

** The author wishes to express his appreciation to Dr. Richard L. Page, M.D., F.A.C.C., Associate Professor of Medicine, Director, Clinical Cardiac Electrophysiology, The University of Texas Southwestern Medical Center at Dallas, and to Charles Tardivat, a third-year law student at Southern Methodist University, for their assistance with this article.

3. Failure to Provide Medical Equipment or Supplies.....	102
4. Negligence of crew in providing medical care...	103
E. DEFENSES	104
1. Preemption	104
2. Meeting Requirements of FARs	106
3. Industry Standards	109
4. Contributory Negligence	111
IV. CONCLUSION.....	113

I. INTRODUCTION

IN THE PAST decade, major commercial airlines have seen an increase of in-flight medical emergencies from three per day in the late 1980s to twenty-nine per day in 1996,¹ and it is anticipated that the number of those emergencies will continue to rise. U.S. airlines carried a record 643.3 million passengers in 1998 and traffic growth is predicted to reach almost one billion by the year 2010.² With the likelihood of increased numbers of elderly passengers and those with pre-existing illnesses, the need to assess the quality of in-flight medical care has become increasingly important.³ These statistics have caused concern that the medical equipment carried onboard airlines and the training provided to crew members is outdated and inadequate.⁴

At the beginning of commercial air passenger service in the late 1920s, Boeing Air Transport required that flight attendants be registered nurses.⁵ That requirement changed during World War II when nursing skills were in demand for the war effort. No carrier today requires that any crew member be qualified as a registered nurse, although crew members today are required to train in the use of the first aid kit and in the handling of emergency situations.⁶

¹ See Susan Okie, *Cardiac Arrest in the Air: Without the Tools to Cope; Emergencies Raise Issue of Airline Preparedness*, WASH. POST, Jan. 15, 1998, at A1.

² See *Commercial Forecast Reports Seventh Consecutive Year of Aviation Growth*, FAA PRESS RELEASE APA 37.99, March 23, 1999.

³ See Russell B. Rayman, *Aerospace Medicine*, 279 JAMA 1777 (1998).

⁴ Subcommittee on Aviation of the House Comm. on Transp. and Infrastructure, *Hearing on Medical Kits on Commercial Aircraft* (visited Aug. 18, 1999) <<http://www.house.gov/transportation/aviation/avhearin/5-21-97/521memo.htm>> [hereinafter *Hearing*].

⁵ See *id.*

⁶ See 14 C.F.R. § 121.417 (1999). Emergency training includes “[f]irst aid equipment and its proper use” (§ 121.417(b)(2)(ii)) and instruction in the handling of emergency situations including “[i]llness, injury, or other abnormal situ-

For many years, air carriers have been required to have approved first aid kits, accessible to flight attendants, for treatment of minor injuries or medical emergencies that might occur during the flight.⁷ The kits contain many of the items one would find in a home first aid kit.⁸ (See Attachment A for a list of Federal Aviation Administrations (FAA) required components in a first aid kit). In 1986, the FAA established regulations requiring air carriers to place emergency medical kits (EMKs) onboard their aircraft.⁹ The EMKs, which are only authorized for use by qualified medical personnel, are more comprehensive than the first aid kits and include such items as a stethoscope, blood pressure measuring device, plastic airways to help deliver oxygen, drugs for allergic reactions, and basic instructions for use of the drugs.¹⁰ (See Attachment B for the required contents of the EMK). The Federal Aviation Regulations (FARs) addressing EMKs were amended in 1994 to require the inclusion of disposable latex gloves,¹¹ and further amended in 1996 to require medical kits on commuter scheduled operations with passenger configurations of 10 to 30 seats.¹²

In recent years, there has been growing debate, both outside and within the aviation industry, as to whether the current medical kits are adequate, particularly for treating heart attack victims.¹³ Indeed, nitroglycerin tablets are the only medication

ations involving passengers or crewmembers to include familiarization with the emergency medical kit." § 121.417(b)(3)(iv).

⁷ See *id.* § 121.309(d).

⁸ See *id.* § 121 app. A (First Aid and Emergency Medical Kits).

⁹ See Certification and Operations: Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft, 51 Fed. Reg. 1223 (1986), which applies to carriers carrying passengers under Part 121 (more than 30 seats) and under Part 135 (more than 19 seats).

¹⁰ See 14 C.F.R. § 121 app. A (First Aid Kits and Emergency Medical Kits).

¹¹ See *Hearing*, *supra* note 4.

¹² See *id.*

¹³ See H. R. REP. NO. 105-456 at 3 (1998). Several distinct conditions comprise what the public considers to be "heart attacks." Angina chest pain results when there is insufficient blood flow or oxygen received by the heart muscle. This can be caused by partial cholesterol blockages in the coronary arteries that supply the heart. Also, lower levels of oxygen at cabin altitude contribute to less oxygen getting to the heart in some passengers.

A heart attack, or myocardial infarction, results when a full blockage in the coronary arteries occurs, or the heart muscle is so starved of oxygen that heart muscle actually dies. The dying heart muscle can cause the heart rhythm to become extremely erratic and cause blood pressure to fall.

A sudden cardiac arrest is the abrupt cessation of the pumping action of the heart. It can be due to a heart attack, angina, or other insults to the heart or

available in the kits for the treatment of cardiac problems.¹⁴ Moreover, not all flight attendants are trained in cardiopulmonary resuscitation (CPR).¹⁵ With the majority of in-flight deaths and most of the medical emergencies attributable to heart conditions, there is a concern to improve both the quality and quantity of in-flight medical training and equipment to better handle cardiac events.¹⁶

According to a study of 120 airlines conducted from 1977 to 1984 and published in the Journal of American Medical Association in 1988, about 72 deaths occur aboard aircraft each year.¹⁷ In many years, this is more than the deaths from airline crashes in the United States.¹⁸ This study indicates that about sixty-three percent of the deaths were due to sudden, unexpected

lungs. *See Hearing, supra* note 4, at 69 (Statement of David K. McKenas, M.D., M.P.H.).

¹⁴ Nitroglycerin treats angina or symptoms of chest pains by relaxing blood vessels and increasing the supply of blood and oxygen to the heart and reducing its work load. *See* MED. ECON. CO., PHYSICIANS DESK REFERENCE 2899 (53d ed. 1999). Diphenhydramine (such as brand name Benadryl) is an antihistamine used on allergic reactions. *See id.* at 2269. Epinephrine is a bronchodilator that increases the flow of air into the bronchial tubes and is used to treat severe allergic reactions. *See id.* at 916.

¹⁵ A review of the 26 carriers represented by the Association of Flight Attendants (AFA) shows that each carrier's training for flight attendants is different. AFA believes that, overall, flight attendants do not receive adequate training in the most basic first aid necessary to manage a medical emergency in the cabin. Some of their members receive instruction for less than 30 minutes to a few hours during their initial training and then during recurrent training every few years. The FAA only recommends that first aid and CPR be taught. However, no flight attendant is required to be certified in CPR. In fact, no flight attendant is required to assist a passenger medically if she/he is uncomfortable with the medical procedure. *See Hearing, supra* note 4, at 17-18 (statement of Mary Kay Hanke, International Vice President of the Association of Flight Attendants).

¹⁶ *See id.* Interestingly, the possibility of preventing death through the application of improved medical equipment onboard aircraft also raises other issues if a "Do Not Resuscitate" order is in place for the passenger. For discussion of these issues, see Amanda C. Dake, *The Application of 'Out-Of-Hospital' Do Not Resuscitate Order Legislation to Commercial Airlines Travel*, 63 J. AIR L. & COM. 443 (1997).

¹⁷ *See* H. R. REP. NO. 105-456, at 4. MedAire, a company which provides medical ground support for airlines, also participated in a year long (October 1996-1997) study of 1,132 in-flight medical emergencies reported by six U.S. airlines based upon data collected and analyzed by MedAire and the Civil Aeronautical Institute, University of Oklahoma. *See* Joan Sullivan Garrett, *Experience with 1,132 In-flight Medical Emergencies: What Have We Learned?*, S. CAL. SAFETY INST., 2-3, Jan. 25, 1999. The data compiled by the study indicated an industry wide rate of approximately 15 in-flight medical emergencies per day and approximately 60 in-flight fatalities per year. The most common serious in-flight medical emergencies were cardiac and vasovagal events. *See id.* at 3.

¹⁸ *See* H. R. REP. NO. 105-456, at 4.

cardiac problems and that the most likely victims were middle-aged men.¹⁹

According to the American Heart Association, more than 1,000 people per day in the United States suffer sudden cardiac arrest,²⁰ and in most cases, it is not possible to “predict who will have a sudden cardiac arrest, or where or when it will happen.”²¹ However, the risk of cardiac arrest apparently increases because of the special circumstances associated with flying. These circumstances include the following:²²

1. Exertion in getting to the gate;
2. Circadian disruption;
3. Stress of flying;
4. Reduced oxygen (equivalent to 5,500 to 7,500 feet above sea level);
5. Failure to recognize the event (even though in a public place); and
6. Delay in reaching a medical facility.

Further, these special circumstances take on added significance because high risk individuals now have access to air travel.²³

¹⁹ See *id.*

²⁰ See David K. McKenas, M.D., M.P.H., *First, Do No Harm: The Role of Defibrillators and Advanced Medical Care In Commercial Aviation*, 68 AVIATION SPACE & ENVTL. MED. 365 (1997).

²¹ *Id.* During flight, the most feared medical emergency is indeed cardiac arrest—a situation in which breathing and circulation stops. Although cardiopulmonary resuscitation (CPR) should be initiated, it is relatively ineffective in maintaining viability of the heart and brain. See *Hearing, supra* note 4, at 21 (Statement of Joan Sullivan Garrett, President, MedAire, Inc.).

²² See Richard L. Page, M.D., *Trans-Thoracic Ventricular Defibrillation: From Bench To Bedside; From Ambulance To Aircraft Aisle*, Internal Medicine Grand Rounds Syllabus University of Texas Southwestern Medical Center at Dallas (Oct. 1, 1998) (unpublished manuscript, on file with author).

²³ During the Aviation Subcommittee hearings on the act, the impact of Air Carrier Access Act on the increase in medical emergencies was discussed. According to testimony from the representative of Qantas Airlines, Qantas is able to screen anyone who is sick or has a recent medical history, and thus there is less likelihood that someone will die on board one of their aircrafts. See *Hearing, supra* note 4, at 28. However, according to Dr. David McKenas, Medical Director of American Airlines, and Edward Merlis, Vice President of the Air Transport Association, U.S. carriers cannot perform such screening because of the Air Carrier Access Act. See *id.* at 32. At American Airlines, if a passenger volunteers or discloses that he or she has a medical problem, the passenger will be referred to a special assistance coordinator who is a liaison with the medical department. American Airlines then will make an assessment in regard to whether or not the passenger is stable for air travel and whether and to what extent extra equipment will be useful. Instances when boarding is denied usually involves a communicable disease such as chicken pox or meningitis. See *id.* at 37. However, if the

In recent years, several foreign air passenger carriers have expanded their medical kits and include defibrillators on their overseas flights.²⁴ A defibrillator is used to restore normal heart rhythm by electric shock.²⁵

According to the FAA, the number of incidents of in-flight medical emergencies cannot be measured accurately because airlines are not required to report them.²⁶ However, the FAA Civil Aeromedical Institute reported that "the rate of in-flight medical emergencies appeared to have nearly doubled between 1990 and 1993, the interval covered by [its] study."²⁷

Most airlines do not keep records of passenger deaths. American Airlines does maintain records of cardiopulmonary resuscitations, which is a good indicator of instances when a defibrillator would be necessary. These records indicate that, from 1991 through 1996, CPR related incidents onboard aircraft almost tripled. In 1991, twelve cases of CPR being administered were reported, while in 1996, some thirty-three cases were reported.²⁸

Emergency medical systems have been using automatic external defibrillators (AEDs) in communities throughout the country since the mid-1980s. By using a computerized diagnostic algorithm, the AED analyzes the ECG tracing and attempts to detect either ventricular tachycardia or ventricular fibrillation. If the AED detects ventricular fibrillation, it will prompt the user to deliver a shock, or will automatically deliver the shock itself, depending upon its design and programming. "Most AEDs include a memory system to allow for post-event monitoring and

passenger fails to disclose the medical problem, the carrier cannot inquire. *See id.*

²⁴ *See* H. R. REP. NO. 105-456 at 3 (1998). These foreign carriers include Qantas, Virgin Atlantic, and Air Zimbabwe. In 1991, Qantas installed Laerdal Heartstart 3000 AEDs into its fifty-five international Boeing 747 and 767 aircraft. For a detailed discussion of the Qantas program, see Michael F. O'Rourke, M.D., DSc; et al., *An Airline Cardiac Arrest Program*, 96 AM. HEART ASS'N CIRCULATION 2849 (1997).

²⁵ *See* Alex Wolbrink, M.D. & Donato Borillo, M.D., J.D., *Airline Use of Automatic Defibrillators: Shocking Developments*, FED. AIR SURGEON'S MED. BULL., ¶ 7 (visited Aug. 28, 1999) <<http://www.cami.jccbi.gov/AAM-400A/FASMB/fas9802/defib.htm>> [hereinafter Wolbrink & Borillo].

²⁶ As is discussed herein in section II. B., reporting of medical events was addressed in the Aviation Medical Assistance Act of 1998 Pub. L. No. 105-170, 112 Stat. 47 [hereinafter AMAA]. .

²⁷ H. R. REP. NO. 105-456, at 4.

²⁸ *See id.*

post-event review of incidents”²⁹ The newest generation of the AEDs are compact, lightweight, durable and easy to use.³⁰

It has also been urged that the medical kit should include medications to stabilize the myocardial tissue in addition to AEDs.³¹ Also important to the survival of the passenger is locating additional supportive care and an appropriate medical facility which, particularly on international flights, will involve decisions by the flight crew.³² Further, flight crews now can often contact medical personnel on the ground for assistance.³³ There is even consideration of the use of telemetry to monitor the condition of ill passengers from the ground.³⁴

²⁹ Wolbrink & Borillo, *supra* note 25, at ¶ 7.

³⁰ An example is the Heartstream ForeRunner, which received FDA clearance in September 1996 and was the AED selected by American Airlines for its aircraft. See Tamar Nordenberg, *Air Aid: Medical Kits, Reach New Heights*, FDA CONSUMER, Jan.-Feb. 1998, at 27; Heartstream, Inc., *Heartstream's ForeRunner Debuts in Front of Congress*, Press Release, Jun. 3, 1997 (visited Oct. 15, 1999) <<http://www.heartstream.com/061397.htm>>. The Heartstream ForeRunner was also tested in accordance with FAA prescribed procedures for utilizing portable electronic devices aboard aircraft. See Section III E 3 for further discussion.

³¹ See, e.g., Wolbrink & Borillo, *supra* note 25, at ¶ 10*. American Airlines also added enhanced medical kits with AEDs and several other carriers are doing the same. American Airlines selected a kit supplied by Banyan International. See American Airlines, Inc., *American Airlines Selects Banyan International To Provide Enhanced Medical Kits* (visited Sep. 9, 1999) <<http://www.amrcorp.com/amr/jan1398htm>>. The contents of the enhanced medical kit utilized by American Airlines is provided as Attachment “C,” while Attachment “C-1” shows the contents of the kit provided by MedAire to its clients. The enhanced medical kits not only contain drugs to treat cardiac problems but also can address a variety of illnesses that may develop on board. However, these kits are intended for medically trained personnel only.

³² See Wolbrink & Borillo, *supra* note 25, at ¶ 10.

³³ For example, the American Airlines Corporate Medical Department provides its “Physicians on Call” program for assistance with on board medical emergencies. See McKenas, *supra* note 20, at 366. Delta obtains its emergency medical advice via radio from physicians with the University of Pittsburgh Center while Northwest pilots are patched directly to the Mayo Clinic in Rochester, Minnesota. See John Crewdson, *Airlines Upgrading In-Flight Medical Care; Carriers, Improving Kits—But at Own Pace*, CHI. TRIB., Aug. 1, 1999, at C1 [hereinafter Crewdson, *AirlineUpgrading*].

The leading independent provider of medical ground support for the airlines is MedAire, which has contracts with more than a dozen airlines, including U.S. Airways, Continental, Alaska, Southwest, Virgin Atlantic, TWA and British Airways. MedAire arranges for worldwide twenty-four hour a day radio links to physicians in the emergency department of Phoenix's Good Samaritan Regional Medical Center. See *id.*

³⁴ See McKenas, *supra* note 20, at 366. American Airlines' medical director, Dr. David K. McKenas, however, believes that at present, the best “medicine” for sud-

Another significant aspect of an in-flight medical emergency is the availability of a physician/passenger on the aircraft. There was a concern, however, that physicians on board flights often would not make themselves known to the flight crew because of the risk of individual liability.

Against this background, Congress in 1997 began to review the issue of in-flight emergencies. The Aviation Subcommittee for the House Committee on Transportation and Infrastructure sought to address four different areas of concern:

1. Reevaluation of the equipment required in medical kits and the medical training required by flight attendants.
2. The necessity for a requirement that air carriers report such information to the FAA.
3. Whether AEDs should be required on commercial passenger airplanes and at airports.
4. Possible limitations of the liability of the carrier and any passenger rendering medical assistance.³⁵

The fifth and final version of H.R. 2843, known as the Aviation Medical Assistance Act of 1998, was discharged by the Senate Commerce Committee for consideration by the Senate in April 1998. The Senate Commerce Committee had also considered a companion Senate bill, S. 1584, introduced by Senator Frist (a physician from Tennessee)³⁶ and Senator Dorgan. H.R. 2843 passed the Senate without amendment by unanimous consent on April 3, 1998 and was signed into law by the President as The Aviation Medical Assistance Act of 1998 (AMAA or "Act") on April 24, 1998.³⁷

II. THE AVIATION MEDICAL ASSISTANCE ACT OF 1998

The following summarizes of the key provisions of the Aviation Medical Assistance Act. A complete copy of the law is Attachment "D" to this paper.

den cardiac arrests is early defibrillation and Advanced Cardiac Life Support (ACLS). *See id.*

³⁵ *See Hearing, supra* note 4.

³⁶ Senator Frist received national publicity after assisting the Capitol Physician's Emergency Response Team to revive a man after he went into full cardiac arrest in the Senate Office Building. *See* Diane Duston, *Dr. Frist Practices His Old Job, Aids Cleveland Man*, THE CHATTANOOGA TIMES, Sept. 15, 1995, at A1.

³⁷ For the legislative status of H.R. 2843, see Library of Congress, H.R. 2843, 105th Cong. (1998) (visited Aug. 28, 1999) <<http://thomas.loc.gov/cgi-bin/bdquery/z?d105:hr02843:@@L/-tom:/bss/d105query.html>>.

A. MEDICAL KIT EQUIPMENT AND TRAINING

First, the Act does not require any immediate action by air carriers with regard to changing medical equipment or training. Instead, Congress has established a scheme whereby the FAA will reevaluate the airlines' medical equipment and training over a one year period. If the Administrator determines that the current regulations should be modified as a result of such reevaluation, the Administrator will issue a notice of proposed rule making.³⁸

B. REPORTS REGARDING DEATHS ON AIRCRAFT

Because of the lack of definitive data of the nature and extent of medical emergencies on air carriers, the Act provides that a one year reporting period be established in which major air carriers are to provide quarterly reports to the FAA regarding deaths that occurred onboard or after removal from the aircraft and the circumstances surrounding such deaths.³⁹ The reporting period was to begin the ninetieth day after the effective date of the Act.⁴⁰

³⁸ 49 U.S.C.A. § 44701, Sec. 2 (West 1999). This section provides that such reevaluation be accomplished within one year after the date of the enactment of the Act (i.e., one year after April 24, 1998). *See id.* However, at the time of the preparation of this article, the author was advised by the FAA that a notice of proposed rule making would not be issued until the FAA issues its decision regarding automatic external defibrillators, discussed in section C below.

³⁹ *See id.* § 3. A "major air carrier," which is required under the AMAA to make the reports, is a carrier that accounts for at least one percent of the domestic scheduled-passenger revenues in the twelve-month period ending March 31, 1997.

⁴⁰ *See id.* § 3(a). According to the FAA, the one year period for reporting commenced July 1, 1998, and the final reports were due on or before June 30, 1999. According to Dr. Jon L. Jordan, the Federal Air Surgeon, the FAA worked with the Air Transport Association (ATA) and the flight attendant unions to devise a data collection form, the "In-flight Medical Incident Report." The ATA then requested its thirteen member air carriers participating in the data collection to complete and return the form following any in-flight medical emergency that results in death or the threat of death. The ATA would then forward the forms to the FAA for the period July 1, 1998 - June 30, 1999, on a quarterly basis. The ATA member airlines reporting were Alaska Airlines, Aloha Airlines, American Airlines, Continental Airlines, Delta Air Lines, Midwest Express Airlines, Northwest Airlines, Southwest Airlines, Trans World Airlines, United Airlines, United Parcel Service, US Airways and associate member, Canadian Airlines International (a copy of the "In-Flight Medical Incident Report Form" is provided as Attachment "E").

There has also been litigation brought pursuant to the Freedom of Information Act, 5 U.S.C. § 552, in an attempt to obtain other in-flight medical emergency data from the FAA. In *Chicago Tribune Co. v. Federal Aviation Administration*, No.

C. DECISION ON AUTOMATIC EXTERNAL DEFIBRILLATORS

One of the key objectives of Congress was to determine whether passenger deaths could be prevented by the improved technology in portable defibrillators; whether the benefits of installing the defibrillators would justify the costs to the airlines; and on what types of aircraft the equipment should be required.⁴¹ As noted above, the Act sets up reporting requirements so that, rather than relying on anecdotal reports, the FAA would have sufficient data from which to determine whether a need exists.

The statute provides that, once the period for reporting deaths on aircraft expired, the FAA had four months to decide whether or not to require AEDs on passenger aircraft operated by air carriers as well as at airports.⁴²

Under the statute, the FAA has the option of either (a) issuing a notice of proposed rule making requiring automatic external defibrillators,⁴³ (b) making a recommendation to Congress for legislation requiring defibrillators, or (c) issuing a

97 C 2363, the Chicago Tribune sought to obtain from the FAA records relating to in-flight medical emergencies in connection with a special report that the Chicago Tribune was preparing No. 97C2363, 1998 WL 242611 (N.D. Ill. May 1, 1998). Although the FAA produced many documents in unredacted form, the FAA produced other documents that were redacted to delete the identity of the individual persons who needed medical attention and to delete information which could identify the airline that provided the data. *See id.* at *1. The court held that the redacted information did not qualify for withholding under Exemption 4 of the Freedom of Information Act as confidential commercial information, and ordered the redacted information to be produced. *See id.* at *2, *3. The court noted that the documents at issue "merely contain factual information regarding the nature and frequency of in-flight medical emergencies and do not contain any in-depth analysis of the airlines in dealing with these incidents." *Id.* at *2.

⁴¹ Currently, the cost of an AED is in the \$3,000 to \$4,000 range. *See Hearing, supra* note 4, at 79 (Statement of David K. McKenas, M.D., M.P.H.).

⁴² 49 U.S.C.A. § 44701, Sec. 4(a) (West 1999). According to the FAA, the decision will be made within 120 days after the completion of collection of the data, which occurred on June 30, 1999. Accordingly, a decision was expected by November 1999. However, at the time of writing this article, the FAA has not made its final decision regarding the requirement of AEDs.

If the FAA requires AEDs at airports, the Act specifically provides that such AEDs will be provided by the airports and not by the carriers. *See id.* § 4(e).

⁴³ Under the statute, if the Administrator does decide to proceed with a notice of proposed rule making, the Administrator must make her final decision not later than the 120th day following the date on which comments are due on the notice of proposed rule making. *See id.* § 4(b). The current FAA Administrator is Jane Garvey.

notice in the Federal Register that defibrillators should not be required.⁴⁴

If the Administrator decides that AEDs should be required on passenger aircraft, the FAA must also address (a) the size of the aircraft to which the requirement applies,⁴⁵ (b) the class of flights (i.e., interstate, overseas, or a foreign, or combination thereof on which the devices should be required),⁴⁶ (c) the training to be required of air services personnel,⁴⁷ and (d) the associated equipment and medication that should also be included in the aircraft medical kit.⁴⁸

Several domestic airlines have not waited for the results of the review required by AMAA. American Airlines was the first domestic airline to equip its aircraft with AEDs and enhanced medical kits. By July 1997, American Airlines had placed AEDs on 242 routes over water and had trained flight attendants in their use.⁴⁹ From June 1997 until March 1998, AEDs were utilized on forty-eight persons (74% men) experiencing cardiac symptoms (forty-two in aircraft, six in an airport), and were successfully employed for monitoring/therapy in forty-seven of the forty-eight instances, with data being unavailable to evaluate the other event.⁵⁰ There were no inappropriate shocks. Fifteen

⁴⁴ See *id.*

⁴⁵ See *id.* § 4(c)(1)(A). The FAA may not require AEDs on helicopters or on aircraft with a maximum payload capacity of 7,500 pounds or less. See *id.* § 4(d).

⁴⁶ See *id.* § 4(c)(1)(B).

⁴⁷ See *id.* § 4(c)(1)(C).

⁴⁸ See *id.* § 4(c)(1)(D).

⁴⁹ See Page, *supra* note 22, at 21. According to American Airlines procedures, when the crew is alerted to an unconscious passenger, one flight attendant will tend to the passenger while another retrieves the defibrillator. After laying the passenger on the floor, the pads of the device are applied. The device then initiates the self test and analyzes the heart's electrical impulses, and thereby determines whether the crew should proceed with CPR or whether an initial shock is necessary. Through voice and text prompts, the flight attendant is walked through the treatment process from diagnosis to the delivery of shock. AEDs do not require the assistance of a physician, but the readouts provided by the machine can be used by American Airlines' on-call physician to evaluate and determine care through radio to ground contact. The AED will continue to monitor the passenger until the aircraft can land and ground assistance arrives. See *Hearing, supra* note 4 (Statements of Denise C. Hedges, President of the Association of Professional Flight Attendants).

⁵⁰ See Page, *supra* note 22, at 21.

flights were diverted, and fifteen others were not, in part because of the information provided by the AED.⁵¹

After nine months of the AED program, American Airlines concluded that the AED performed appropriately and expanded the program to include all aircraft. American Airlines has now equipped its entire fleet of 650 aircraft with AEDs and enhanced medical kits. According to American Airlines, the AEDs have been used more than a hundred times to monitor passengers with cardiac problems and has saved the lives of six passengers.⁵² In addition, other domestic carriers have installed or are beginning to install defibrillators on some or all of the airplanes. Delta Airlines has announced that all 584 aircraft in its fleet would be equipped with automatic external defibrillators and enhanced emergency medical kits by June 30, 1999.⁵³ US Airways began installing defibrillators and electrocardio-

⁵¹ Richard L. Page, M.D., et al., *Initial Experience With On-Board Automatic External Defibrillators On A Domestic Commercial Airline*, *Circulation* 98, No. 1998, Piii, number 22 (1998): "Internal Medicine Grad Rounds."

These statistics were given a more human face in a recent story in the *Chicago Tribune*. An American Airlines non-stop flight from Boston to Los Angeles was one hour east of Denver when a passenger's heart began fibrillating wildly. As the passenger's wife screamed for help, the flight attendant arrived with the plane's defibrillator and applied it to the passenger. After four minutes of use of the AED, the passenger's heart had resumed its normal rhythm. The plane diverted to Denver, the passenger was removed, and he was doing well in a local hospital.

In addition to the AEDs, American Airlines also set about installing enhanced medical kits on its airplanes at the same time. According to the same *Chicago Tribune* article, while the passenger on the Boston to Los Angeles flight was being saved by the AED, another passenger on an American Airlines flight over central Nevada had collapsed while reading the newspaper. See John Crewdson, *In-Flight Lifesavers*, *CHI. TRIB.*, Nov. 22, 1998, at C1. However, this passenger was suffering from hypotensive bradycardia (a dangerously slow heart rhythm) and the prescribed treatment was a heart stimulant, atropine. Fortunately, one of the passengers was a surgical resident, and the medical kit did indeed contain atropine. After the atropine was administered, and an emergency landing was made in Los Vegas, the passenger survived. See *id.*

⁵² See Laura Griffin, *3 Men Credit Airline For Saving Their Lives*, *DALLAS MORNING NEWS*, July 24, 1999, at 36A. The article also notes that American Airlines has created its "American Airlines Golden Heart Club," whose membership includes persons saved by the defibrillator, as well as flight attendants and passengers who used the device in flight.

⁵³ See Delta Airlines, Inc., *Delta Airlines Equips Entire Fleet with Defibrillators and Expanded Emergency Medical Kits Ahead of Schedule*, News Release, Jun. 2, 1999. Delta also selected the Heartstream ForeRunner defibrillator as did American Airlines and the enhanced medical kits supplied by Banyan.

On May 21, 1999, a Delta flight attendant who experienced a cardiac arrest on a flight from Salt Lake City to New Orleans was the first life saved by the use of a

gram monitors on its aircraft in early 1999. US Airways has also announced that it will begin equipping its fleet with enhanced medical kits by late 1999.⁵⁴ Northwest Airlines will begin installation toward the end of 1999 and will complete installation in the year 2000.⁵⁵ United Airlines also declared its intention to install defibrillators and enhanced medical kits by the Summer of 1998, but has not yet begun installation.⁵⁶

D. LIMITATION OF LIABILITY

For attorneys practicing aviation law, the most significant aspect of the AMAA is its provisions for limitation of liability. While the limitations are important, it must also be recognized that they are not broad in nature and must be examined carefully.

1. *Liability of Air Carriers Under the AMAA*

The Act limits the airlines' liability where medically-trained passengers are called upon to assist in medical emergencies. Sec. 5(a) of the Act provides:

(a) Liability of air carriers. -- An air carrier shall not be liable for damages in any action brought in a Federal or State court arising out of the performance of the air carrier in obtaining or attempting to obtain the assistance of a passenger in an in-flight medical emergency, or out of the acts or omissions of the passenger rendering the assistance, if the passenger is not an employee or agent of the carrier and the carrier in good faith believes that the passenger is a medically qualified individual.⁵⁷

Accordingly, the elements for an air carrier to enjoy immunity are as follows:

Delta AED. See John Crewdson, *Delta Saves Life of Attendant in Its First Use of Defibrillator*, CHI. TRIB., June 3, 1999, at 5.

⁵⁴ See US Airways, Inc, *US Airways to Begin Equipping Aircraft with Enhanced Emergency Medical Kits*, News Release, Aug. 26, 1999 (visited Oct. 17, 1999) <http://www.usairways.com/company/news/nw_99_0826.htm>. "US Airways selected the Lifepak 500 defibrillator made by Medtronic Physio-Control . . . and the Biolog 3000 hand-held monitor manufactured by Micromedical" US Airways also utilizes MedAire's Medlink Physicians for on ground support. See *id.*

⁵⁵ See *Northwest Airlines Corporation Reports Second Quarter Profit of \$120 Million*, PR NEWswire, July 20, 1999, at 3.

⁵⁶ Apparently, protracted negotiations in the signing of a contract to train United's 25,000 flight attendants have caused a delay in United's timetable to install the AEDs in its aircraft. See Crewdson, *Airlines Upgrading*, *supra* note 33, at C1.

⁵⁷ 49 U.S.C.A. § 44701, Sec. 5(a) (West 1999).

- the action must arise out of the carrier's obtaining or attempting to obtain the assistance of a passenger in an in-flight medical emergency, or out of the acts or omissions of the passenger rendering the assistance;
- the passenger must not be an employee or agent of the air carrier; and
- the carrier must in good faith believe the passenger is a medically qualified individual.

Thus, a carrier clearly:

- is still liable for the acts of its own agents or employees.
- is protected from liability for the acts or omissions of the passenger rendering assistance only if the carrier in good faith believes the passenger is medically qualified.⁵⁸

Suppose that the carrier's employees rely upon the representations of a medically qualified passenger to determine that a diversion to an alternate airport is not necessary. Does this relieve the air carrier of liability under the statute? As will be discussed more fully below, the answer, apparently, is no.

2. *Liability of Individuals Under the AMAA*

As was noted in the hearings before the Aviation Subcommittee, evidence suggested that many physicians and other qualified medical personnel who may be on board a flight when a medical emergency arises may not respond to an emergency because of concerns about personal liability.⁵⁹ Congress addressed the question of the liability for the potential Good Samaritan as follows:

(b) Liability of individuals. - - An individual shall not be liable for damages in any action brought in a Federal or State court arising out of the acts or omissions of the individual in providing or attempting to provide assistance in the case of an in-flight medical emergency unless the individual, while rendering such assistance, is guilty of gross negligence or willful misconduct.⁶⁰

Accordingly, the medically qualified passenger, called upon to assist in an in-flight emergency, should not today be concerned about his personal liability. However, the question remains as to

⁵⁸ "A 'medically qualified individual' includes any person who is licensed, certified, or otherwise qualified to provide medical care in a State, including a physician, nurse, physician assistant, paramedic, or emergency medical technician." *Id.* § 6(3).

⁵⁹ It is estimated that a physician is present on board 85% of American Airlines's flights. See Page, *supra* note 23, at 21.

⁶⁰ 49 U.S.C.A. § 44701, Sec. 5(b) (West 1999).

how to bring such good news to the attention of such passengers. Because the Act is so new, it is probably not common knowledge among physicians that such a Good Samaritan statute now exists.⁶¹

E. APPLICATION TO U.S. CARRIERS

The limitation of liability as set forth in section 5(a) of the AMAA applies to an "air carrier."⁶² The term "air carrier" has the same meaning as in 49 U.S.C. § 40102, i.e., "a citizen of the United States undertaking by any means, directly or indirectly, to provide air transportation."⁶³ On the other hand, the liability limitation does not apply to a "foreign air carrier" which is "a person not a citizen of the United States, undertaking by any means, directly or indirectly, to provide foreign air transportation."⁶⁴ The limitation does apply, however, to international transportation conducted by a domestic air carrier.

III. LIABILITY OF AIR CARRIER FOR IN-FLIGHT MEDICAL EMERGENCIES

A. INTRODUCTION

In-flight medical emergencies have often resulted in litigation against the airlines on which the emergency occurred. There are many reported cases involving in-flight medical emergencies on both domestic and international flights prior to the April 24, 1998, effective date of the AMAA. This paper will examine the circumstances under which the airline can be liable and, in particular, the extent to which the AMAA has affected such liability.

⁶¹ One additional issue which has arisen is whether the "Good Samaritan" is entitled to be compensated. A British psychiatrist sued American Airlines in London for the compensation of his treatment of a passenger that experience an in-flight medical emergency. The doctor billed American Airlines for about \$900 for his time and said that the airline's gift of about \$250 in travel vouchers and a bottle of champagne was inadequate. The case received much publicity in England and the United States. See Yvonne Barlow, *Doctor Who Aided Passenger Awaits Suit's Outcome*, DALLAS MORNING NEWS, Oct. 8, 1998, at 31A.

⁶² 49 U.S.C.A. § 44701, Sec. 5(a) (West 1999).

⁶³ See U.S.C. § 40102(a)(2).

⁶⁴ *Id.* at § 40102(a)(21).

B. LIABILITY OF AIRLINES FOR IN-FLIGHT MEDICAL EMERGENCIES
ON INTERNATIONAL FLIGHTS

1. Was there an "accident" under Article 17?

If a passenger is injured on an international flight, the first question that arises is whether the Warsaw Convention applies.⁶⁵ Ordinarily, the Warsaw Convention is applicable to cases of bodily injury which occurred during "international transportation."⁶⁶ Article 17 of the Warsaw Convention provides that air carriers are liable for injuries to passengers on international flights "if the accident which caused the damage so sustained took place on board the aircraft or in the course of any of the operations of embarking or disembarking."⁶⁷ Thus, an airline is liable to a passenger under the Convention if the passenger proves that an "accident" caused his injury.⁶⁸

The United States Supreme Court has defined "accident" to mean "an unexpected or unusual event or happening that is external to the passenger."⁶⁹ For example, in *Air France v. Saks*, a passenger on a twelve-hour flight from Paris to Los Angeles began to feel severe pain and pressure in her left ear as the plane descended into Los Angeles. Five days later, she visited a doctor, who concluded that she was permanently deaf in her left ear. A federal district court in California granted summary judg-

⁶⁵ See Convention for the Unification of Certain Rules Relating to International Transportation by Air, *opened for signature* Oct. 12, 1929, 49 Stat. 3000, 3014 137 L.N.T.S. 11, *reprinted in* 49 U.S.C. app. § 1502 (1988) [hereinafter Warsaw Convention].

⁶⁶ In pertinent part, Article 1(2) states: "... 'international transportation' shall mean any transportation in which, according to the contract made by the parties, the place of departure and the place of destination . . . are situated either within the territories of two High Contracting Parties, or within the territory of a single High Contracting Party, if there is an agreed stopping place within a territory . . . of another power" *Id.*

⁶⁷ Article 17 states: "The carrier shall be liable for damage sustained in the event of the death or wounding of a passenger or any other bodily injury suffered by a passenger, if the accident which caused the damage so sustained took place on board the aircraft or in the course of any of the operations of embarking or disembarking." *Id.* at 3018.

⁶⁸ A carrier may use the Warsaw Convention defensively to either take advantage of its monetary limitations or to argue that it provides an exclusive remedy but there is no recoverable "accident" under the Convention. Significantly, the recent changes brought about by the IATA Inter-carrier Agreement, which has been signed by most carriers, provides for carrier liability regardless of fault up to approximately \$140,000 U.S. (100 Special Drawing Rights) and the possibility of a recovery above \$140,000 U.S. without any monetary limitation.

⁶⁹ *Air France v. Saks*, 470 U.S. 392, 405 (1985).

ment in favor of the airline on the basis that the passenger's injury did not constitute "an accident" under the Warsaw Convention, but a divided Court of Appeals reversed. Granting *certiorari*, the United States Supreme Court agreed with the district court and held that the plaintiff's injury did not constitute an accident under the Convention. The United States Supreme Court held that "when the injury undisputably results from the passenger's own internal reaction to the usual, normal, and expected operation of the aircraft, it has not been caused by an accident, and Article 17 of the Warsaw Convention cannot apply."⁷⁰ Thus, in-flight medical emergencies that are caused either by a normal occurrence during the flight or by a passenger's internal condition do not constitute accidents under the Warsaw Convention.⁷¹

In *Seguritan v. Northwest Airlines, Inc.*,⁷² the plaintiff's decedent suffered a heart attack while a passenger on an international flight and plaintiff alleged that the flight crew failed to provide proper assistance. The court held that the plaintiff had alleged an "accident" within the meaning of *Article 17*, not because of the heart attack itself, but because of the alleged aggravation of the decedent's condition by the negligent failure of the defendant's employees to render medical assistance.⁷³

Perhaps the most interesting and significant case involving an in-flight emergency in international travel is *Krys v. Lufthansa German Airlines*.⁷⁴ There, plaintiff Krys, a forty-seven year old

⁷⁰ See *id.* at 406.

⁷¹ The following cases illustrate findings of no accident: *Krys v. Lufthansa German Airlines*, 119 F.3d 1515, 1522 (11th Cir. 1997), *cert. denied*, 118 S. Ct. 1042 (1998) (airline failed to make an unscheduled landing after a passenger suffered a heart attack on an international flight); *Abramson v. Japan Airlines Co.*, 739 F.2d 130, 133 (3d Cir. 1984) (airline failed to help passenger suffering from hernia attack); *DeMarines v. KLM Royal Dutch Airlines*, 580 F.2d 1193, 1197-98 (3d Cir. 1978) (pain in the passenger's head and a loss of equilibrium); *Tandon v. United Air Lines*, 926 F. Supp. 366, 369-70 (S.D.N.Y. 1996) (sudden heart attack); *Walker v. Eastern Air Lines, Inc.*, 775 F. Supp. 111, 114 (S.D.N.Y. 1991) (parties agreed passenger suffered asthma attack); *Fischer v. Northwest Airlines, Inc.*, 623 F. Supp. 1064, 1065 (N.D. Ill. 1985) (failure to treat passenger who suffered a heart attack and subsequently died onboard a flight); *Warsaw v. Trans World Airlines, Inc.*, 442 F. Supp. 400, 412-13 (E.D. Pa. 1977) (passenger suffered a loss of hearing due to normal cabin depressurization).

⁷² 86 A.D.2d 658, 446 N.Y.S.2d 397 (N.Y. App. Div. 1982), *aff'd*, 57 N.Y.2d 767, 454 N.Y.S.2d 991, 440 N.E.2d 1339 (N.Y. 1982).

⁷³ See *id.* at 398. The result of finding that there was an "accident" within the meaning of the Warsaw Convention resulted in plaintiff's claim being barred by the Convention's two year limitation period. See *id.* at 399.

⁷⁴ 119 F.3d 1515 (11th Cir. 1997).

travel agent, was a passenger on a Lufthansa flight from Miami to Frankfurt, Germany. In the early hours of the flight, Krys began to feel ill and contacted a flight attendant who requested that any doctors onboard the plane identify themselves to the crew. Three passengers responded. After the passengers agreed that Dr. Fischmann was best suited to handle the situation, he began to attend to Mr. Krys. Dr. Fischmann concluded from his initial examination of the patient that "there was nothing to worry about"; only when the flight was over Amsterdam did Dr. Fischmann become convinced that Krys might be having a heart attack.⁷⁵

The magistrate judge found, however, that Krys had "suffered the symptoms of a cardiac infarction, as described by the American Medical Association and Lufthansa's Manual, . . . within the first one and one-half to three hours of the ten hour flight"⁷⁶ During that time period, the plane's flight path kept it close to the U.S. east coast, but the crew—ostensibly relying on Dr. Fischmann's opinion—did not make an unscheduled landing.⁷⁷ After landing in Germany, the plane was met by an ambulance that transported Krys to a hospital where the doctors concluded that he indeed had suffered a heart attack.

Filing suit in the United States District Court for the Southern District of Florida, Krys did not allege that any act or omission of Lufthansa caused the heart attack, but instead that the crew "acted negligently in responding to the symptoms displayed by Mr. Krys and thus aggravated the damage to his heart."⁷⁸ The defendants, moving for summary judgment, "argued that the plaintiffs' state law causes of action were preempted either by the Warsaw Convention or, alternatively, by the Federal Aviation Act."⁷⁹ After these arguments were rejected, the case proceeded to trial as a common-law negligence action. The trial judge ruled in favor of plaintiff and rendered judgment in the amount of \$1.8 million for Mr. Krys and \$600,000 for his wife.⁸⁰

Affirming, the Eleventh Circuit first rejected Lufthansa's argument that the events that occurred on the flight constituted an "accident" under the terms of the Warsaw Convention, thus precluding any state law claims. While acknowledging that the

⁷⁵ See *id.* at 1517.

⁷⁶ *Id.*

⁷⁷ See *id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ See *id.*

question was close, the court held that looking solely to a factual description of the aggravating event, i.e., the continuation of the flight to its scheduled point of arrival, "compels a conclusion that the aggravation injury was not caused by an 'unusual or unexpected event or happening that is external to the plaintiff,'"⁸¹ and accordingly, there was no accident within the meaning of the Warsaw Convention.

The Eleventh Circuit went on to hold that the district court's findings of fact, that Mr. Kryz was displaying symptoms of a heart attack within the one to three hours of the flight and that the airline crew was negligent in failing to land even though the doctor on board had informed the crew that, in his opinion, Mr. Kryz was not having a heart attack, were not clearly erroneous. Under Florida law, a common carrier owes the highest degree of care to its passengers.⁸² While the Eleventh Circuit again agreed that the question was close, the court took note of both the plaintiff's expert testimony that the Lufthansa crew deviated from airline industry standards by relying upon the opinion of the doctor rather than using their own judgment and following their own manuals, and his further testimony that the captain of the aircraft "must bear the ultimate responsibility as the person in charge."⁸³ Accordingly, the Eleventh Circuit felt that "the magistrate judge could conclude that notwithstanding Dr. Fischmann's impressions, Lufthansa's employees knew or should have known that Mr. Kryz was suffering a heart attack, and thus that an unscheduled landing was necessary."⁸⁴

The Eleventh Circuit affirmed that the evidence supported a finding that the crew's negligence led to significant permanent injury to the passenger's heart and affirmed the damage award. Since it was uncontested that the airline did not cause the heart attack, plaintiff had to prove he sustained damages as a direct result of a failure to land the aircraft at an available airport. Apparently, Mr. Kryz' cardiologist testified at trial that if Mr. Kryz had received thrombolytic therapy two to four hours after the onset of the symptoms, the damage to his heart would have been significantly less.⁸⁵

If the Aviation Medical Assistance Act of 1998 had been in effect at the time of Mr. Kryz' heart attack, would there have

⁸¹ *Kryz*, 119 F.3d at 1522.

⁸² *See id.* at 1527.

⁸³ *Id.*

⁸⁴ *Id.* at 1528.

⁸⁵ *See id.* at 1529.

been a different result in this case? The answer apparently is no.⁸⁶ The Act makes it clear that the airline is not liable for "obtaining or attempting to obtain" the assistance of a passenger, nor is the airline responsible for damages arising "out of the acts or omissions of the passenger rendering the assistance" (if the airline believes in good faith that the passenger is medically qualified). However, the Act apparently does not relieve the carrier of its own duty of care to the passenger, and the crew retains its responsibility for the passenger's safety.⁸⁷ Accordingly, when deciding not to land the aircraft as soon as possible, or deciding not to seek additional medical assistance, a crew cannot solely rely upon the opinion of a "medically qualified" assistance. Thus, if a jury finds the crew's decision negligent, the carrier will be held liable.

In the report from the Committee on Transportation and Infrastructure that accompanied H.R. 2843, it was stated:

[this] provision should not affect situations such as the one that arose in *Krys v. Lufthansa German Airlines*. The provision in the reported bill ensures that airlines will not be held liable for the acts or omissions of passengers who are not its employees and whom they do not control. However, in *Krys*, the airline was held liable there not because of acts or omissions of the passenger rendering assistance but rather because the airline's employees failed to divert the flight and land when its own policy as well as standard industry practice indicated that it should have done so.⁸⁸

From the airline's standpoint, it is difficult to comprehend why the flight and cabin crew, as in *Krys*, would be in a better position than a trained physician to evaluate whether or not a passenger is having a heart attack. It appears, however, from the report accompanying H.R. 2843 that it was the intent of the AMAA that, regardless of the physician's advice, the airline's employees must continue to follow the airline's own policy as well as whatever "standard industry practice" may apply.

As noted below, however, the recent U.S. Supreme Court decision in *El Al Israel Airlines, Ltd. v. Tseng* has, in effect, overruled that part of the *Krys* opinion, which permitted the plaintiff to proceed with his state law claim.

⁸⁶ Further, it would appear that the AMAA would not apply in this case since it only applies to U.S. owned carriers.

⁸⁷ See 49 U.S.C.A. § 44701, Sec. 5(a) (West 1999).

⁸⁸ H. R. REP. NO. 105-456 (1998).

2. *Is the Warsaw Convention exclusive or may the passenger pursue state law remedies?*

Another significant issue involving international flights and the AMAA is whether the Warsaw Convention provides the exclusive remedy so as to preempt state law, even where there is no finding of accident under *Article 17*. While plaintiffs have argued that *Article 17* is exclusive only when the injury was caused by an "accident" as defined in that same *Article 17*, airlines have contended that the Warsaw Convention preempts state law causes of action, leaving the passenger with no remedy, either under the Warsaw Convention or under state law for claims not arising from accidents. Until recently, there was a split among the circuits regarding exclusivity; the Second Circuit and the Third Circuit held that the Warsaw Convention does not provide the exclusive remedy,⁸⁹ while the Fifth Circuit held the opposite.⁹⁰ This dispute has been resolved in favor of the airlines, both by amendment to the Warsaw Convention and by the U.S. Supreme Court.

On September 28, 1998, the United States subscribed to Montreal Protocol No. 4, which amends Article 24 of the Warsaw Convention. Article 24, as amended, now reads as follows:

In the carriage of passengers . . . , any action for damages . . . can only be brought subject to the conditions and limits set out in this Convention. . . .⁹¹

Thus, as pointed out by the Supreme Court in *El Al Israel Airlines, Ltd. v. Tseng*, under this Protocol, "[an international] passenger whose injury is not compensable under the Convention (because it entails no 'bodily injury' or was not the result of an 'accident') will have no recourse to an alternate remedy."⁹²

In *Tseng*, the Supreme Court held that, even prior to signing the Montreal Protocol, the Warsaw Convention precluded a passenger from maintaining an action for personal injury damages under local law even when the passenger's claim does not satisfy the conditions for liability under the Warsaw Convention.⁹³ The

⁸⁹ *Tseng v. El Al Israel Airlines, Ltd.*, 122 F.3d 99 (2d Cir. 1997), *cert. granted*, 118 S.Ct. 1793 (1998), and *Abramson v. Japan Airlines Co.*, 739 F.2d 130 (3d Cir. 1984), *cert. denied*, 430 U.S. 1059 (1985).

⁹⁰ *Potter v. Delta Air Lines, Inc.*, 98 F.3d 881 (5th Cir. 1996), and *Boehringer-Mannheim Diagnostics, Inc. v. Pan American World Airways, Inc.*, 737 F.2d 456 (5th Cir. 1984), *cert. denied*, 469 U.S. 1186 (1985).

⁹¹ 119 U.S. 662, 667 (1999).

⁹² *Id.* at 667-68.

⁹³ *See id.* at 668.

Supreme Court held that if the plaintiff did not suffer bodily injuries suffered as a result of an "accident . . . on board the aircraft or in the course of any of the operations of embarking or disembarking," then not only has the plaintiff failed to state a claim that is compensable under the Warsaw Convention, but, under Article 24 of the Convention, the plaintiff has no remedy under state law.⁹⁴

Presently, for an international passenger to prevail on a claim for medical emergency on an international flight subject to the Warsaw Convention, the plaintiff must proceed under the Convention and, therefore, must establish that his injury was caused by "an accident" within the meaning of *Article 17*. However, as discussed earlier, the courts frequently have found that a passenger's medical emergency was the result of routine travel procedures and a passenger's own internal reaction, and not the result of an "accident" within the meaning of *Article 17*.⁹⁵ In a "non-accident" case, the passenger now has no remedy.

As the foregoing cases indicate, the plaintiff may want the Warsaw Convention to apply in order to take advantage of its absolute liability provision, while the defendant may invoke the Convention for its damages limitation or claim preclusion. Therefore, although beyond the scope of this paper, it should be noted that with the recent waiver of liability limitations pursuant to the IATA Agreement by many airlines, the application of the Convention will certainly be more attractive to a passenger seeking recovery for an in-flight medical emergency against such airlines, if he can prove that his damages were caused by an "accident."⁹⁶

C. LIABILITY ON DOMESTIC FLIGHTS

In the *Krys* case, the Eleventh Circuit, holding that the Warsaw Convention did not apply, affirmed a judgment for the passenger on the basis of Florida state law.⁹⁷ Although it is now clear

⁹⁴ *Id.*

⁹⁵ See cases cited in Section III. B. 1.

⁹⁶ See *supra* text accompanying note 66. Further, it would be noted that a new international aviation liability agreement created to replace the 1929 Warsaw Convention and its many protocols and amendments was opened for signature on May 28, 1999. The new Convention introduced a two-tier liability system providing strict liability for airline passenger death or injury up to \$100,000 Special Drawing Rights, currently about \$135,000. The second tier provides unlimited liability when a carrier is presumed to be at fault, Av. L. Rep. (CCH) No. 1166, Jun. 16, 1999.

⁹⁷ *Krys v. Lufthansa German Airlines*, 119 F.3d 1515, 1527 (11th Cir. 1997).

after *Tseng* that state law would not have been available to the plaintiff in *Krys*, that case remains instructive in cases in which state law is applicable. As the *Krys* court noted, Florida imposes the highest degree of care on airlines toward its passengers.⁹⁸ Many states, including Texas, likewise have an enhanced standard of care for a common carrier such as an airline.⁹⁹

As the above discussion of the *Krys* case indicated, the airline could not discharge its state law duty to the passenger by deferring to the medical opinion of Dr. Fischmann, the doctor on board the aircraft. This apparently continues to be the case even after the passage of the Aviation Medical Assistance Act.

It is clear that the plaintiff cannot recover based upon negligent treatment provided by a medically qualified passenger. Thus, as in *Krys*, the plaintiffs probably will contend that the crew either failed to respond to the passenger when notified of a medical problem, or that the crew failed to divert the aircraft and/or seek additional medical assistance when it appeared that such action was necessary, regardless of the advice given to the crew by a medically qualified person on board the aircraft. In these cases, an examination of the airlines' manuals for the flight crew and cabin crew will be appropriate in order to ascertain the guidelines provided by the carrier.

D. PLAINTIFF'S THEORIES OF LIABILITY

1. *Failure to Render Assistance*

Perhaps the most common cause of action alleged against an air carrier involving in-flight emergencies is a failure by the crew to render assistance. As noted above, the majority of the courts that have considered these issues in a Warsaw context have concluded there was not an accident under *Article 17*.¹⁰⁰ On the other hand, in *Seguritan v. Northwest Airlines*, the New York courts found the crew's negligent failure to render medical assistance aggravated the decedent's condition thereby creating an "acci-

⁹⁸ *Id.*

⁹⁹ *Dallas Railway & Terminal v. Travis*, 78 S.W.2d 941, 942 (Tex. 1935). According to Kriendler, *Aviation Accident Law Revised*, the majority of the states continue to hold a common carrier airline to "the highest degree of care." See LEE S. KRIENDLER, *AVIATION ACCIDENT LAW REVISED* § 2.07, 27-30 (1999). On the other hand, Kriendler notes that care should be taken in reviewing the latest decisions in each state since some states, such as New York, have recently moved away from a high degree of care standard. See *id.*

¹⁰⁰ See Section III. B. 1. herein.

dent.”¹⁰¹ As also noted above, a case may not proceed on the state law claims if an accident is not found under *Article 17*.

The following cases have addressed state law claims in the context of a carrier's failure to render aid:

- *Krys v. Lufthansa German Airlines*.¹⁰² This significant decision has already been discussed in detail above.
- *Northern Trust Company v. American Airlines Inc.*:¹⁰³ The plaintiff's decedent died from heart disease after being taken to a hospital in Mexico City during a stop over on his flight from Acapulco to Chicago. The plaintiff alleged that American Airlines was negligent in failing to remove the plaintiff's decedent from the aircraft when it became apparent that the stop over would be longer than anticipated and in failing to immediately transport the plaintiff's decedent to a Mexico City hospital when it became apparent that the condition required medical treatment that would only be rendered in the hospital. Although the jury found the plaintiff 60% contributorily negligent and reduced his damages accordingly, the case was reversed because of the exclusion of testimony regarding the plaintiff's own negligence in failing to use due care for his own safety in even taking the flight.¹⁰⁴
- *Walker v. Eastern Air Lines Inc.*:¹⁰⁵ In this case, the plaintiff's husband died from an asthmatic condition during a flight from Jamaica to New York. Plaintiff contended that Eastern was negligent in allowing her husband to board the plane and by not providing him with adequate care after boarding. After concluding that there was not an accident under the Warsaw Convention, the court ruled that there was an issue of material fact as to whether the airline's negligence aggravated the passenger's pre-existing asthmatic condition, thereby contributing to his death.¹⁰⁶

2. *Failure to Divert and/or Land as Soon as Possible*

Another possible theory of recovery for the plaintiff is negligence of the airline in failing to divert or make an unscheduled landing. This certainly was the basis for recovery in the *Krys* case.¹⁰⁷ On the other hand, in *Hollis v. American Airlines Inc.*,¹⁰⁸

¹⁰¹ 86 A.D. 2d 658.

¹⁰² 119 F.3d 1515 (11th Cir. 1997), *cert. denied*, 118 S. Ct. 1042 (1998).

¹⁰³ 491 N.E.2d 417 (Ill. App. 1st Dist. 1985).

¹⁰⁴ *See id.* at 422.

¹⁰⁵ 775 F. Supp. 400 (E.D. Penn. 1977).

¹⁰⁶ *See Walker*, 775 F. Supp. at 116. This case should also be reviewed in light of the recent *Tseng* decision, addressed herein in Section III. B. 2.

¹⁰⁷ 119 F.3d at 1522.

the Fifth Circuit dismissed as frivolous an appeal by the plaintiffs from a summary judgment in a case involving a passenger who suffered a heart attack while the flight was en route to Jackson, Mississippi. When the flight attendants notified the captain of the situation, he received clearance for a "straight in approach" at the Jackson International Airport.¹⁰⁹ Although emergency medical personnel boarded the airplane immediately and attended to the passenger while the remaining twenty or so passengers (all seated in front of the decedent) disembarked in the front, the passenger died some four days later at a local Jackson hospital. The plaintiffs' basis for liability was that American Airlines was negligent for (1) failing to "request priority landing clearance at Jackson," (2) allowing the other passengers to disembark before the deceased, and (3) not allowing the ambulance to park near the aircraft at the Jackson Airport.¹¹⁰ In finding that there were no genuine issues of material fact regarding acts or omissions by American Airlines, the Fifth Circuit held:

It is obvious beyond question that the various decisions and judgment calls made on that fateful night, that Appellants accuse American Airlines of having made negligently, were simply not made by American Airlines; neither were they American's to make. Appellants' position on appeal—arguing that American Airlines has liability for such decisions—is so lacking in legal merit as to be frivolous as a matter of law.¹¹¹

Accordingly, while the plaintiffs may allege that the carrier was negligent in failing to divert or land the aircraft as quickly as possible upon being made aware of the medical emergency, the plaintiff must take care to allege negligent acts or omissions that are actually within the control of the carrier.

A diversion for a medical emergency can often present difficult choices for the crew. A diversion is not only expensive for the airline, but also disrupts other passengers' schedules. Further, a diversion to an unintended or unknown airport may raise other concerns. If the airline does not fly into that particular airport on a regular basis, the aircraft may not have ground support available and the crew may not be aware of the proximity of

¹⁰⁸ 138 F.3d 1028 (5th Cir. 1998).

¹⁰⁹ See *id.* at 1029. The Fifth Circuit Opinion does not indicate when during the flight the passenger became ill or whether there were closer alternative airports available for a diversion.

¹¹⁰ *Id.* at 1030.

¹¹¹ *Id.*

quality of available medical care. Accordingly, it may be in the passenger's best interest for a flight to proceed to its intended destination, perhaps after requesting and receiving expedited handling from air traffic control, rather than to land at an alternate airport where there may be additional delays in obtaining appropriate medical care for the ill passenger.

3. *Failure to Provide Medical Equipment or Supplies*

In *Tandon v. United Air Lines*,¹¹² the passenger died after suffering a heart attack while on board a flight from London to New York. Her son-in-law, a doctor, was administering oxygen to the ill passenger. However, the oxygen container was empty, and he requested additional oxygen but was told there was none available. While the plane was still en route, the passenger lost consciousness and died. After holding that there was no "accident" under the Warsaw Convention, the court concluded that the plaintiff's state law claims were not preempted by the Warsaw Convention and could proceed.¹¹³

In *Somes v. United Airlines, Inc.*,¹¹⁴ the plaintiff's decedent suffered a cardiac arrest while a passenger on a flight from Boston to San Francisco.¹¹⁵ Plaintiff's sole theory of liability is the failure of the carrier to have an AED or other proper medical equipment onboard.¹¹⁶ In this case, which is still pending, United sought dismissal of the plaintiff's complaint based upon express and implied preemption.¹¹⁷ At present, the FARs only call for a first aid kit and a medical kit whose required contents are set forth in FAR 121.309. As noted above, the FAA is currently examining the issue as to whether AEDs should be required on air carriers. In the meantime, AEDs have been utilized on some international carriers since 1990, and on domestic carriers since 1997.

Accordingly, can a plaintiff still pursue a state law claim that the airline is negligent in not equipping the aircraft with auto-

¹¹² 926 F. Supp. 366 (S.D.N.Y. 1996).

¹¹³ See *Tandon*, 926 F. Supp. at 370-371. This decision would also be overruled by the recent decision in *Tseng*, *supra* Section III. B. 2.

¹¹⁴ 33 F. Supp. 78 (D. Mass. 1999).

¹¹⁵ See *United Says Sit on Lack of Defibrillator Preempted by Fed. Law*, (Memorandum in Support of Defendant, United Airlines, Inc.'s Motion to Dismiss), AVIATION LITIG. REPORTER 25344, May 12, 1998. As discussed in Section III. E. 1., United Airlines, Inc.'s Motion to Dismiss was denied.

¹¹⁶ See *Somes*, 33 F. Supp. at 80.

¹¹⁷ See *id.* at 80.

matic external defibrillators? In addition to the preemption argument raised by *Somes*,¹¹⁸ there is also the question whether the express limitation of liability contained in the AMAA applies. It appears not because the protection provided for the air carrier is limited to those situations "arising out of the performance of the air carrier in obtaining or attempting to obtain the assistance of a passenger" in an in-flight medical emergency.¹¹⁹

Further, what if the aircraft is equipped with an automatic external defibrillator and it fails to function? Depending upon the reason for the malfunction, e.g., whether the AED unit was improperly maintained, or whether the AED itself was defective, a cause of action may lie against the airline and/or the manufacturer of the AED.¹²⁰ Research has revealed no instances of AED failure on aircraft to date, but, as noted above, these units have only recently become commonly used in airline service. It is assumed that in deciding whether or not to require AEDs on passenger aircraft, the FAA, pursuant to its obligations under the AMAA, will consider whether or not AEDs are sufficiently reliable and practical to require their use on all passenger aircraft.

4. *Negligence of crew in providing medical care*

It is clear from the AMAA that the air carrier will still be liable for the acts or omissions of its employees in rendering assistance.¹²¹ Accordingly, it appears that an allegation could be made either that the airline failed to properly train its personnel in how to respond to medical emergencies or, alternatively, that a crew member failed to follow the prescribed procedures.¹²²

Further, with the introduction of sophisticated equipment such as the AEDs, there may be a concern that damage may be done to a passenger by an improperly administered shock. However, the unit is designed to operate completely automatically and, to date, there have been no instances of a shock being improperly applied to a passenger.¹²³

¹¹⁸ *Id.*

¹¹⁹ 49 U.S.C.A. § 44701, § 5(a) (West 1999).

¹²⁰ At least one manufacturer, HP Heartstream, has established a program to indemnify owners of ForeRunner AEDs who experience mechanical or electrical failure or malfunction that did not result from negligence, gross negligence, or improper acts. See Hewlett-Packard, Co., *HP Introduces AED User Indemnification Program*, News Release, July 8, 1998.

¹²¹ See 49 U.S.C.A. § 44701, Sec. 4(a) (West 1999)

¹²² As discussed *supra* note 14, the degree of crew training varies greatly among the airlines.

¹²³ See Page, *supra* note 22, at 22-23.

E. DEFENSES

1. *Preemption*

In 1978, Congress passed the Airline Deregulation Act (ADA), which substantially deregulated domestic air transportation. Section 1305(a)(1) of the ADA provides that: "No state . . . shall enact or enforce any law, rule, regulation, standard or other provision having the force and effect of law relating to rates, routes, or services of any carrier. . . ." ¹²⁴ Two Supreme Court decisions have discussed the scope of preemption under the ADA. In *Morales v. Trans World Airlines Inc.*, ¹²⁵ the Supreme Court ruled that the ADA preempted state enforcement of the Air Travel Industry Enforcement Guidelines adopted by the National Association of State Attorneys General. And in *American Airlines Inc. v. Wolens*, ¹²⁶ the Supreme Court held that the ADA preempted the plaintiff's consumer fraud claims with regard to the American Airlines Frequent Flyer Program but not plaintiff's breach of contract action.

Although the Supreme Court has not spoken on the issue, many other courts have held that the ADA does not displace state law actions for physical injuries or property damage, particularly when related to the operation and maintenance of the aircraft. ¹²⁷ Until recently, the Ninth Circuit made a distinction between actions relating to "services," which the court found were preempted by the ADA, and actions relating to "operations

¹²⁴ 49 U.S.C.A. § 41713(b)(1) (1999).

¹²⁵ 504 U.S. 374, 391 (1992).

¹²⁶ 513 U.S. 219, 220 (1995).

¹²⁷ See *Hodges v. Delta Airlines, Inc.*, 44 F.3d 334 (5th Cir. 1995) (stating that a passenger injured by object falling from overhead bin); *Continental Airlines, Inc. v. Kiefer*, 920 S.W.2d 274 (Tex. 1996) (in consolidated appeal of claims involving Continental and American Airlines, Texas Supreme Court held that ADA did not preempt common law negligence claims against air carriers and did not preempt all negligence claims arising out of "meet and assist" services); *Barbakow v. US Air, Inc.*, 950 F. Supp. 1145 (S.D. Fl. 1996) (stating that a passenger injured when flight attendant dropped a soft drink on her foot); *Haavistola v. Delta Airlines, Inc.*, 96C-06-047-JOH 1997 Del. Super. LEXIS 63 (Del. Super. Ct. February 28, 1997) (stating that a passenger injured by unruly passenger kicking her); *Knopp v. American Airlines Inc.*, 938 S.W.2d 357 (Tenn. 1996) (plaintiff could proceed on both negligence and contract claims for failure to provide wheelchair and resulting from injuries sustained when she fell from electric cart that carrier provided); *Peterson v. Continental Airlines Inc.*, 970 F. Supp. 246 (S.D.N.Y. 1997) (stating police escorting plaintiff off airplane after plaintiff refused to deboard on overbooked flight); *Rivera v. Delta Air Lines Inc.*, No. 96-CV-1130, 1997 U.S. Dist. LEXIS 14989 (E.D. Pa. Sept. 26, 1997) (finding plaintiff, who had requested wheelchair, suffered injuries when she fell in airline terminal).

and maintenance" of an aircraft, which the court found were not preempted.¹²⁸ However, in *Charas v. Trans World Airlines, Inc.*,¹²⁹ the Ninth Circuit overruled *Gee* and other authorities which had made such a distinction. Instead, the court held that the term "services" means economic services and does not include such personal services as an airline's provision of in-flight beverages, assistance to passengers, handling of luggage, and similar amenities.¹³⁰

Somes is the only reported preemption case specifically involving an in-flight medical emergency.¹³¹ As previously noted, plaintiff's theory of liability was the failure of the carrier to have an AED or other proper medical equipment on board.¹³² The defendant, United Airlines, filed a motion to dismiss, contending that there was express preemption pursuant to the ADA or, alternatively, implied preemption on the basis of the pervasiveness of federal regulation of aviation safety. On January 11, 1999, the U.S. District Court in Boston denied the motion.¹³³ After a comprehensive review of preemption decisions, including the recent Ninth Circuit decision in *Charas v. TransWorld Airlines, Inc.*,¹³⁴ the district court found that the provision of emergency medical equipment to treat in-flight medical emergencies was unrelated to the actual operation of the aircraft and therefore, was distinct from the "services" Congress had in mind when it adopted the ADA's preemption provision.¹³⁵ The court also noted that the provision of emergency medical equipment was not inherent in airlines operations and was typically not a "bargained for or anticipated" service and accordingly would not be preempted under the Fifth Circuit's definition in *Hodges v. Delta Air Lines, Inc.*,¹³⁶ The court went on to hold as follows:

In sum, because a requirement that airlines equip flights with enhanced emergency medical kits is distinct from the "services" Congress had in mind when it adopted the ADA's preemption

¹²⁸ See *Gee v. Southwest Airlines*, 110 F.3d 1400, 1406 (9th Cir. 1997).

¹²⁹ 160 F.3d 1260, 1263 (9th Cir. 1998).

¹³⁰ See *id.* at 1266.

¹³¹ 33 F. Supp. 78 (D. Mass. 1999).

¹³² The plaintiff also alleged that the carrier failed to respond to passengers "in the throes of acute illness." (Plaintiff's Memorandum in Opposition to Motion to Dismiss, p. 1)

¹³³ See *Somes*, 33 F. Supp. at 79.

¹³⁴ 160 F.3d 1259 (9th Cir. 1998).

¹³⁵ See *Somes*, 33 F. Supp. at 82.

¹³⁶ See *id.* at 85; cf. *Hodges v. Delta Air Lines, Inc.*, 44 F.3d 334, 336 (5th Cir. 1995).

provision, and does not have a "forbidden significant effect" on airline "rates, routes, or services," it is not expressly preempted.¹³⁷

The court also held that there was no implied preemption.¹³⁸ First, the court noted that the FAA regulations address "safety" only as it relates to actual transportation of passengers to and from their destinations, not the health and medical needs of the individual passengers, and therefore do not suggest a congressional intent to preempt the *Somes*' claim.¹³⁹ While the FAA regulations do contain requirements for emergency kits, the court noted that these are only minimum requirements.¹⁴⁰ Accordingly, a "requirement that airlines carry a defibrillator does not implicate 'air safety' as understood and focused on by Congress in its enactment of the Federal Aviation Act, and therefore is not preempted."¹⁴¹

The court also noted that in addition to not being barred under "field" preemption, plaintiff's claim also was not barred under a "conflict" theory.¹⁴² United argued that an airline could find itself in a position of complying with a state common law duty that conflicts with a federal requirement.¹⁴³ In rejecting the argument, the district court noted that there was nothing of record to suggest that a common law duty requiring airlines to carry defibrillators is "in tension" with Congress's safety concerns.¹⁴⁴

2. Meeting Requirements of FARs

Airlines fly under the authority of, and pursuant to, the requirements of the Federal Aviation Regulations (FARs), an exhaustive body of rules formerly known as the Civil Air Regulations.¹⁴⁵ Although the FAA is required by the AMAA to reevaluate the types of medical equipment that the carriers must carry on board and the type of training that must be provided to the crew members, there currently are regulations in effect that set forth the requirements of a first aid kit, a medical kit, and

¹³⁷ *Somes*, 33 F. Supp. at 87.

¹³⁸ *See id.*

¹³⁹ *See id.*

¹⁴⁰ *See id.*

¹⁴¹ *Id.*

¹⁴² *See id.*

¹⁴³ *See Somes v. United Airlines*, 33 F. Supp. 78 (D. Mass. 1999).

¹⁴⁴ *Id.* at 87-88.

¹⁴⁵ *See Kriendler, supra* note 94, § 2.10(1).

the training of the airline personnel.¹⁴⁶ By their language, however, the regulations only prescribe the “minimum” contents for the first aid kit and the medical kit, and only broadly describe the training of the crew.¹⁴⁷

The FARs are admissible into evidence to show the proper standard of care and to demonstrate the violation of such regulations may be negligence *per se*.¹⁴⁸ While it would appear that a failure of an airline to comply with the current regulations regarding the contents of a medical kit, a first aid kit, or the training of the crew members ordinarily would support a negligence

¹⁴⁶ See *supra* Section I.

¹⁴⁷ See 14 C.F.R. §§ 121.417, 121.309(d), app. A (West 1999). Prior to 1986, the first aid kit was the only kit required to be carried on an aircraft. In 1981, a petition was published in the Federal Register regarding the carriage of emergency medical equipment on commercial flights. See 46 Fed. Reg. 42278 (1981). In response to the petition, the FAA received comments from 370 interested persons. The majority expressed their support for including an emergency medical kit on commercial aircraft, see 51 Fed. Reg. 1218 (1986). In 1985, the FAA published its Notice of Proposed Rule Making (NPRM) number 85-9, entitled “Emergency Medical Equipment” in the Federal Register, see 50 Fed. Reg. 10444 (1988). The FAA received approximately 140 comments in response to the NPRM. While some commenters recommended carrying additional equipment such as cardiac monitors/defibrillators, the majority expressed concern about the misuse of the equipment and drugs in the proposed kit. There were also comments regarding the necessity of Good Samaritan legislation to protect crew members and physicians who might provide in-flight medical assistance. Interestingly, the American Medical Association expressed opposition to the requirement of a medical kit to contain surgical instruments and drugs because of its belief that the potential for misuse outweighed any benefits that may be gained through the availability of such equipment, see 51 Fed. Reg. 1218 (1986). In addition, the Senate Commission on Commerce, Science and Transportation, in Senate Report 99-93 dated June 27, 1985, also in 51 Fed. Reg. 1218, stated “it is clear that these kits should not contain surgical instruments, such as scalpels or other inciseive devices, or controlled substances as defined in the Comprehensive Drug Abuse Prevention and Control Act of 1970 (21 U.S.C. § 801 et seq.). These items, even in the most sophisticated of hospital emergency facilities, must be handled with extreme caution and only in conjunction with the elaborate diagnostic equipment and expertise available at such facilities. They are not suitable for carriage in an on-board medical kit.” Emergency Medical Equipment, 51 Fed. Reg. 1218,1220 (1986) (codified at 14 C.F.R. pt. 11). Accordingly, the FAA modified the required contents of their proposed medical kit to eliminate all surgical instruments and controlled drugs. The FAA noted that “this resolves or reduces many of the concerns regarding security, the potential for liability for use of the kit, the burden of required DEA record keeping and accountability, congressional concerns, and the objections of numerous commenters, as discussed previously.” *Id.* at 1221. In essence, the FAA in 1986 deleted from the proposed medical kit many of the same instruments and medications that are now being promoted as necessary equipment in the new “enhanced” emergency medical kits.

¹⁴⁸ See Kriendler, *supra* note 93.

finding, the more difficult question is whether an airline can be found negligent for not equipping its aircraft with additional items such, as the AEDs or enhanced medical kits, which are already in use by some airlines but are not required by the FAA.¹⁴⁹ This appears to go back into the issue of implied preemption discussed in paragraph 1 above. For example, in *Cleveland v. Piper Aircraft Corp.*,¹⁵⁰ Piper, in a product liability action, "argued that the Federal Aviation Act of 1958 . . . and the regulations it ha[d] spawned impliedly preempt[ed] the state tort actions by occupying the field of airplane safety."¹⁵¹ In that regard, Piper sought to show that its aircraft design was approved by the FAA, and it would be impossible to comply with both state common law standards and the federal regulations.¹⁵² The Tenth Circuit, however, rejected Piper's argument, holding that the Federal Aviation Act does not impliedly preempt state law tort claims.¹⁵³ The United States Supreme Court denied *certiorari*.¹⁵⁴

On the other hand, the Third Circuit, recently held that federal law does preempt the standards of aviation safety.¹⁵⁵ In this case, passengers allegedly injured by turbulence aboard an American Airlines flight obtained a jury verdict, but the district court granted a new trial, holding that the Federal Aviation Act does impliedly preempt state and territory regulations of aviation safety and standards of care for pilots, flight attendants, and passengers. Additionally, and accordingly, the district court had erred in admitting evidence of standards other than federal standards.¹⁵⁶ On appeal (the district court having certified the issue for interlocutory review), the Third Circuit held that the Federal Aviation Act impliedly preempts the entire field of aviation safety.¹⁵⁷ The Third Circuit based its holding upon the determination that "the FAA and relevant federal regulations establish complete and thorough safety standards for interstate

¹⁴⁹ This issue may become moot once the FAA makes its recommendations regarding AEDs and enhanced medical kits. See Aviation Medical Assistance Act of 1998, Pub. L. No. 105-170, 112 Stat. 47 (codified at 49 U.S.C.A. § 44701 (1999)).

¹⁵⁰ 985 F.2d 1438 (10th Cir. 1993), *cert. denied*, 510 U.S. 408 (1993).

¹⁵¹ *Id.* at 1441.

¹⁵² See *id.* at 1445-46.

¹⁵³ See *id.* at 1447.

¹⁵⁴ See *Piper Aircraft Corp. v. Cleveland*, 510 U.S. 908 (1993).

¹⁵⁵ See *Abdullah v. American Airlines, Inc.*, 181 F.3d 363, 376 (3rd Cir. 1999).

¹⁵⁶ See *Abdullah*, 181 F.3d at 364.

¹⁵⁷ See *id.*

and international air transportation and that these standards are not subject to supplementation by, or variation among, jurisdictions.”¹⁵⁸ The Third Circuit, however, went on to find that state and territorial law still control the damages remedies available to the plaintiffs.¹⁵⁹

Accordingly, there now appears to be a distinct division among the circuits, and in particular, between the Third Circuit and the Tenth Circuit, as to whether the Federal Aviation Act established standards that preempt the entire field of aviation safety.

3. *Industry Standards*

In contesting a plaintiff's claim that the airline was negligent in not equipping its aircraft with AEDs or enhanced medical kits, a defendant airline may argue that it was the industry custom or standard not to carry any additional medical equipment not mandated by the Federal Aviation Regulations. Evidence of industry custom is relevant and admissible under state law to assist the jury in determining whether a defendant airline exercises the appropriate standard of care under the circumstances of the case.¹⁶⁰ However, even if the defendant airline has complied with industry standards, a trier of fact is not compelled to accept industry standards as the appropriate standard of care.¹⁶¹

While it is clear that the industry standard for domestic carrier was not to use AEDs not before July 1997, the trend is for the use of AEDs to become the industry standard as other major carriers, such as US Air, Delta, United, and Northwest have moved toward their implementation. The issue of industry standard, however, may become moot should the FAA mandate their requirement later this year.

Further, there appears to be some question as to when AEDs were first available for use by domestic carriers on their aircraft.

¹⁵⁸ *Id.* at 365. (remanding the case to the district court to determine whether the testimony and jury instructions were consistent with the standards set out in the FARs). *See id.* In particular, the Third Circuit noted that 14 C.F.R. § 91.13(a), which states that “No person may operate an aircraft in a careless or reckless manner so as to endanger the life of another,” established an “overarching general standard of care under the FAA and its regulations” and that the “reasonable standard of care” used in the trial court may not have necessarily been incompatible with 14 C.F.R. 91.13(a). *Id.*

¹⁵⁹ *See id.* at 375.

¹⁶⁰ *See Texas & Pac. Ry. Co. v. Behymer*, 189 U.S. 468, 470 (1903).

¹⁶¹ *See, e.g., The T.J. Hooper* 60 F.2d 737, 740 (2d Cir. 1932) (Hand, J.).

The issue is somewhat confusing because of the interplay of the Federal Drug Administration (FDA) and the FAA regulations and policies regarding the use of AEDs on aircraft. One FDA publication stated that the FDA had cleared an AED "for in-flight use" in September 1996 and thus, in doing so, the FDA required the manufacturer to show that the AED can function properly in an aircraft environment without interfering with the operation of the aircraft.¹⁶² Another FDA source, however, reported that while the FDA regulates medical devices, such as defibrillators so that they are safe and effective for their intended use, the FDA does not regulate whether they may be used on aircraft.¹⁶³

¹⁶² See Nordenberg, *supra* note 30. The Heartstream ForeRunner AED utilized by American Airlines did receive FDA clearance on September 10, 1996. The ForeRunner defibrillator was given FDA clearance under the "substantial equivalence" procedure as set forth in 21 U.S.C. Sec. 360c. Pursuant to such procedure, a manufacturer may file a 510(k) Premarket Notification showing that its product is "substantially equivalent" in its design, function and materials to predicate products, thereby by-passing the premarket approval steps normally necessary for new devices. (A detailed description of the Premarket Notification 510(k) process may be found at <<http://www.fdo.gov/cdrh/devadvice/314.htm>>). Heartstream filed its 510K notification that the design, function and materials used in the ForeRunner were substantially equivalent to predicate products. See Appendix 25, 510K Summary of Safety and Effectiveness Heartstream, Inc. Forerunner External Defibrillator and Accessories, K955628, September 10, 1996. According to Heartstream, it subsequently submitted a request to amend the file on September 20, 1996, in order to include a revision of the User's Guide to include use of the AED in aircraft. In support of its request, Heartstream submitted the testing that it had performed to show compliance with RTCA/DO-160, "Environmental Conditions and Testing Procedures for Airborne Equipment," which is referenced in FAA Bulletin number FSAW98-05, discussed below. See Letter from Bill Jordan, Regulatory Affairs, Hewlett-Packard, Co., to author (Sept. 13, 1999) (on file with author). In a letter dated November 1, 1996, the FDA noted that based upon the additional information provided by Heartstream, it did not appear that Heartstream had significantly changed or modified the intended use of the device, but left it to Heartstream to determine whether any change to the device or its labeling could significantly affect the device's safety or effectiveness and thus require submission of a new 510K. See Letter from Thomas J. Callahan, Ph.D., Director, Division of Cardiovascular, Respiratory, and Neurological Devices, Office of Device Evaluation, Center for Devices and Radiological Health, Public Health Service, Food and Drug Administration, to Lori Glastetter, Vice President, Regulatory Affairs and Quality Assurance, Heartstream, Inc. (Nov. 1, 1996) (on file with author).

¹⁶³ Information provided by Nancy M. Leonard at the FDA indicates that the Office of Device Evaluation (ODE), the FDA office responsible for conducting scientific reviews of medical devices, regulates the safety and effectiveness of defibrillators. The FDA, however, does not regulate where these devices may be used (e.g., airplanes). See Letter of Nancy M. Leonard, Public Health Advisor, Communications Section HFZ-210, Office of Health and Industry Programs,

With regard to approval for use on aircraft, the FAA treats AEDs as portable medical devices, which are considered portable electronic devices.¹⁶⁴ As such, these devices are subject to 14 C.F.R. § 91.21(b)(5), which basically requires the aircraft operator to determine whether the devices will cause interference with the navigation and communication systems of the aircraft.

4. *Contributory Negligence*

A question arises as to whether a carrier may rely upon the defense of contributory negligence if a passenger knew, or should have known, that he was not in a condition to make a flight and still elected to do so. This issue was addressed in *Northern Trust Co. v. American Airlines, Inc.*¹⁶⁵ In that case, the plaintiff's husband, Mr. Nardi, had a pre-existing heart disease, but still elected to make a trip from Chicago to Acapulco. While in Acapulco, Mr. Nardi did not feel well, and a local cardiologist determined that he was experiencing heart failure caused by myocardial infarction. While receiving medications for his condition in Mexico, Mr. Nardi decided to return to Chicago. En route from Acapulco, the flight made a stop in Mexico City where there was a delay due to mechanical problems. Although

Center for Devices and Radiological Health, Public Health Services, Food and Drug Administration, to Tatha Wells (Mar. 22, 1999) (on file with author).

¹⁶⁴ Federal Regulations allow the operation of portable devices on aircraft the "which the operator of the aircraft has determined will not cause interference with the navigation or communication system of that aircraft." 14 C.F.R. § 91.21(b)(5) (1999). FAA Bulletin FSAW 98-05 further provides that portable electronic devices (PEDs) should be designed and tested to determine their level of radiated emissions. Furthermore it states that devices that test within the emission levels contained in the following RTCA documents may be used without further testing by the operator aboard the aircraft: Document Nos. RTCA/DO-160C, "Environmental Conditions and Testing Procedures for Airborne Equipment," and RTCA/DO-199, "Potential Interference to Aircraft Electric Equipment from Devices Carried Aboard." Devices not meeting the emission levels contained in the RTCA documents are required to be tested in the operator's aircraft for electromagnetic interference and radio frequency interference with navigation, communications, and flight control systems installed in the aircraft. Details of the testing are set forth in Bulletin FSAW 98-05. (Note: Although Bulletin FSAW 98-05 expired on 3/30/99 by its own terms, the FAA has advised that the Bulletin has been incorporated into its Principal Inspector Handbook). The latest version of "Environmental Conditions and Testing Procedure for Airborne Equipment" dated July 29, 1997, is Document No. DO-160D, (*See also* Advisory Circular 21-16D). Further, Advisory Circular 91.21-1 entitled "Use of Portable Electronic Devices Aboard Aircraft" also addresses these issues. A newer version identified as Advisory Circular 91.21-1A has been prepared in draft form but as of this date has not been issued.

¹⁶⁵ 491 N.E.2d 417 (Ill. App. Ct. 1985).

he was seen at a medical clinic at the Mexico City airport, Mr. Nardi refused to go to a hospital in Mexico City. After returning to the aircraft, Mr. Nardi began experiencing severe abdominal pains and, pursuant to the advice of another passenger, a physician, he was taken to a hospital. Mr. Nardi died at the hospital from organic heart disease.

The plaintiffs filed suit against American Airlines, contending that American Airlines "failed to remove Nardi from the aircraft when it became apparent that the stopover in Mexico City would be longer than anticipated, and that [American Airlines] failed to immediately transport Nardi to the Mexico City hospital when it became apparent that Nardi's condition required medical treatment."¹⁶⁶ In defending, American Airlines contended "that Nardi was contributorily negligent in not following the physician's recommendation to enter a hospital in Acapulco and not fly to Chicago."¹⁶⁷ At trial, the jury found that Nardi was sixty percent contributorily negligent and awarded his widow forty percent of her damages.¹⁶⁸ However, American Airlines appealed, contending that the trial judge erroneously excluded the testimony of two doctors who had given Nardi warnings about flying.¹⁶⁹ The plaintiffs "contended that because [their] cause of action did not arise out of an accident, Nardi was only required to exercise ordinary care for his safety at and after the time he became a passenger on the flight."¹⁷⁰ "Therefore, plaintiffs assert[ed], the testimony of Nardi's Chicago and Mexico physicians and other persons concerning Nardi's physical condition, his knowledge of his physical condition, and his conduct before he became a passenger was irrelevant."¹⁷¹ The appellate court disagreed, holding that

[T]he issue, therefore, is not whether plaintiffs as a matter of law were *required* to establish that Nardi exercised ordinary care for his safety before he became a passenger. Rather, the issue is American Airlines' *right* to show Nardi's medical treatment, his poor physical condition and his awareness of his illness before the flight, *as evidence of his contributory negligence*. Where a plaintiff's injuries are allegedly caused by a defendant's negligence,

¹⁶⁶ *Id.* at 422.

¹⁶⁷ *Id.*

¹⁶⁸ *See id.*

¹⁶⁹ *See id.* at 423.

¹⁷⁰ *Id.* at 423. The opinion in *Northern Trust* should be read in light of the recent decision by the U.S. Supreme Court in *Tseng*, discussed previously herein. *See supra* text accompanying note 90.

¹⁷¹ *Northern Trust*, 491 N.E. 2d at 423 (emphasis omitted).

the defendant has the right to show that the plaintiff was contributory negligent, which question of fact is preeminently for the jury to decide. The fact that there was no accident in this case did not alter Nardi's responsibility to exercise due care for his own safety.¹⁷²

Accordingly, a defendant should explore the possibility of showing, under the applicable state law, that the passenger failed to exercise due care for his own safety by taking a flight, when he was either advised not to do so by medical personnel, or was aware of facts that should convince a reasonable person not to do so.

IV. CONCLUSION

There is no question that incidents of in-flight emergencies will continue to increase and that the airlines must be prepared to deal with them. This, however, is an exciting time with regard to equipment becoming available that can be utilized to address passenger medical emergencies by crew members with nonmedical backgrounds. Further, the adoption of the Good Samaritan Provision of the AMAA, there should be less reluctance on the part of such medical personnel to respond to emergencies of fellow passengers.

With regard to the airline's liability concerning in-flight medical emergencies, the AMAA does provide the carrier with some protection with respect to passengers who are qualified medical personnel that assist with medical emergencies. On the other hand, it is clear that the air carrier cannot delegate the duty of care it owes to its passengers. Thus, the air carrier will continue to be ultimately responsible in the event the crew fails to carry out its responsibility to passengers concerning medical emergencies that may arise in-flight.¹⁷³

¹⁷² *Id.* at 424-25 (emphasis in original) (citation omitted).

¹⁷³ The author wishes to thank Paul S. Weinberg with the firm of Robinson, Donovan, Madden and Barry, P.C. in Springfield, Massachusetts for his assistance with both the substantive content of this article and for providing a different perspective. Mr. Weinberg represents the plaintiffs in *Somes v. United Airlines*, discussed herein.

FAA First-Aid Kit Requirements

Approved first-aid kits required by FAR § 121.309 must contain at least the following or other approved contents:

Contents
Adhesive bandage compresses, 1 inch
Antiseptic swabs
Ammonia inhalants
Bandage compresses, 4 inch
Triangular bandage compresses, 40 inch
Arm Splint, non-inflatable
Leg Splint, non-inflatable
Roller bandage, 4 inch
Adhesive tape, 1 inch standard roll
Bandage scissors

FAA Medical Kit Requirements

The approved emergency medical kit required by FAR § 121.309 must contain as a minimum, the following appropriately maintained contents in the specified quantities:

1986 Content Requirements	1997 Content Requirements
Sphygmomanometer	Sphygmomanometer
Stethoscope	Stethoscope
Airways (3 sizes)	Airways (3 sizes)
Syringes	Syringes
Needles	Needles
50% Dextrose injection	50% Dextrose injection
Epinephrine	Epinephrine
Diphenhydramine HCl	Diphenhydramine HCl
Nitroglycerin tablets	Nitroglycerin tablets
Basic instruction for use of the drugs in the kit.	Basic instruction for use of the drugs in the kit.
	Protective latex gloves or equivalent.

American Airlines Enhanced Medical Kit Contents

Prefilled Syringes: Atropine 10ml 0.1mg/ml (1) Brevonium 10ml 50mg/ml 21ga x 1 1/2" (2) Dextrose 50% 50ml 500mg/ml 18ga x 1 1/2" (2) Diazepam 2ml 5mg/ml 22ga x 1 1/4" (2) Epinephrine 10ml 1:10,000 21ga x 1 1/2" (2) Lidocaine 2% 5ml 20mg/ml 21ga x 1 1/2" (2) Sodium Bicarbonate 8.4% 50ml 50mEq 18ga x 1 1/2" (1)	Capsules & Tablets: Aspirin 2 pack 325gr (2) Nifedipine Capsules 10mg (2) Nitrostat Tabs 25 tabs 0.4mg 1/150gr (1) I.V. Equipment: 0.9% Sodium Chloride, 500ml (1) I.V. Set w/2-Y connectors (1) I.V. Catheter 18 ga. x 2" (2) I.V. Catheter 22 ga. x 1 1/4" (2)	Surgical Instruments: Scalpel (1) Scissors (1) Sutures, Prolene (1) Sutures, Vicryl (1) Tape, Hypoallergenic (1) Thumb Forceps (1) Tourniquet (1) Urinary Catheter (1)
Ampules: Atropine 1ml 1mg/ml (1) Benadryl 1ml 50mg/ml (2) Epinephrine 1ml 1:1,000 1mg/ml (3) Furosemide 2ml 10mg/ml (1) Lanoxin 2ml 10mg/ml (1) Levsin 1ml 0.4mg/ml (1) Narcan 1ml 0.4mg/ml (2) Nubain 1ml 10mg/ml (2) Phenergan 1ml 25mg/ml (2)	Monitoring Equipment: Stethoscope (1) Sphygmo - Digital (1) Thermometer, oral strips (2) Needles: 18 ga. x 1 1/2" (1) 20 ga. x 1 1/2" (1) 25 ga. x 1 1/4" (1) 25 ga. x 5/8" (1)	Airway Equipment: Airways Small (1) Medium (1) Large (1) Endotracheal Tubes w/stylets 3mm (1) 5mm (1) 7mm (1) Laryngoscopes Large (1) Small (1) Light Source (1) Resuscitator, CPR Microshield (1)
Vials: Calcium Chloride 10% 10ml 100mg/ml (1) Solu-Cortef 250mg 125mg/ml (1) Inhalant: Entolin Inhaler 6.8gr 6.8gm (1) Additional Items: Manual Suction Amber Bag Blood Borne Pathogens Kit	Syringes: 3ml w/o needle (1) 12ml w/o needle (1) Surgical Instruments: Alcohol Sponges (2) Gauze Sponge 3x3 (2) Hemostat (2) Needle Holder (1)	Reference Materials: Stat Kit Reference Guide (1) American Heart Assn. Algorithms (1) EMK Contents Placard (1) Treatment Tag (1) Plastic Seals (4) Keys (2)

Medaire Medical Kit

Injectable Medication	Qty	Needles/Syringes	Qty
Cardiac Lidocaine 2% 100mg pre-loaded s	2	TB syringe with needle	2
Atropine preloaded 1mg syringes	2	3cc syringe	2
Epinephrine 1:10,000 syringe	2	10cc syringe	1
Epinephrine 1: 1,000 1 mg ampule	1	30cc syringe	1
Epi-Pen 1:1,000 0.3 mg syringe	1	18g needle	2
Glucagon 1mg vial	1	20g needle	2
Dextrose 50% 50ml vial	1	25g needle	2
Diphenhydramine 50mg vial	2		
Promethazine 25ml vial	1	Airway Equipment	
Narcan 1mg ampule	2	60mm oral airway	1
Terbutaline 1 mg ampule	1	100mm oral airway	1
		115mm oral airway	1
Oral Medication		Pocket mask with oxygen inlet	1
Nitroglycerin tablets	25	Manual suction device	1
Aspirin 325mg tablets	4		
Acetaminophen 325mg tablets	10	Miscellaneous Equipment	
Loperamide 2mg caplets	4	Blood pressure cuff	1
Dicyclomine 20mg caplets	2	Stethoscope	1
Promethazine 25mg tablets	2	Digital thermometer	1
Aleve 220mg tablets	8	Steri strips 1/2 x 4	10
Diphenhydramine liquid 25ml	2	Benzoin crushed amps swab	2
Viscous Lidocaine 20ml	1	Band-aids	5
Antacid liquid 30ml	2	2x2 Gauze	5
Ibuprofen suspension 60ml	1	4x4 Gauze	5
Glucose gel	1	Non-adhering dressings	4
		Rolled Gauze	2
Inhalation Medications		Large Trauma Dressing 10 x 30	1
Ventolin inhaler	1	Bacitracin ointment	1
Nasal decongestant spray 0.05%	1	Red Robinson Urinary Catheter 14	1
		Tape 1/2 inch micropore	1

THE AVIATION MEDICAL ASSISTANCE ACT OF 1998

SUBPART III — SAFETY

CHAPTER 447 — SAFETY REGULATION

§ 44701. General requirements

Section 1. Short Title.

This Act may be cited as the “Aviation Medical Assistance Act of 1998.”

Sec. 2. Medical Kit Equipment and Training.

Not later than 1 year after the date of the enactment of this Act [April 24, 1998], the Administrator of the Federal Aviation Administration shall reevaluate regulations regarding: (1) the equipment required to be carried in medical kits of aircraft operated by air carriers; and (2) the training required of flight attendants in the use of such equipment, and, if the Administrator determines that such regulations should be modified as a result of such reevaluation, shall issue a notice of proposed rulemaking to modify such regulations.

Sec. 3. Reports Regarding Deaths on Aircraft.

(a) **In general.**—During the 1-year period beginning on the 90th day following the date of the enactment of this Act [April 24, 1998], a major air carrier shall make a good faith effort to obtain, and shall submit quarterly reports to the Administrator of the Federal Aviation Administration on, the following:

(1) The number of persons who died on aircraft of the air carrier, including any person who was declared dead after being removed from such an aircraft as a result of a medical incident that occurred on such aircraft.

(2) The age of each such person.

(3) Any information concerning cause of death that is available at the time such person died on the aircraft or is removed from the aircraft or that subsequently becomes known to the air carrier.

(4) Whether or not the aircraft was diverted as a result of the death or incident.

(5) Such other information as the Administrator may request as necessary to aid in a decision as to whether or not to require automatic external defibrillators in airports or on aircraft operated by air carriers, or both.

(b) **Format.**—The Administrator may specify a format for reports to be submitted under this section.

Sec. 4. Decision on Automatic External Defibrillators.

(a) **In general.**—Not later than 120 days after the last day of the 1-year period described in section 3, the Administrator of the Federal Aviation Administration shall make a decision on whether or not to require automatic external defibrillators on passenger aircraft operated by air carriers and whether or not to require automatic external defibrillators at airports.

(b) **Form of decision.**—A decision under this section shall be in the form of a notice of proposed rulemaking requiring automatic external defibrillators in airports or on passenger aircraft operated by air carriers, or both, or a recommendation to Congress for legislation requiring such defibrillators or a notice in the Federal Register that such defibrillators should not be required in airports or on such aircraft. If a decision under this section is in the form of a notice of proposed rulemaking, the Administrator shall make a final decision not later than the 120th day following the date on which comments are due on the notice of proposed rulemaking.

(c) **Contents.**—If the Administrator decides that automatic external defibrillators should be required.—

(1) on passenger aircraft operated by air carriers, the proposed rulemaking or recommendation shall include.—

(A) the size of the aircraft on which such defibrillators should be required;

(B) the class flights (whether interstate, overseas, or foreign air transportation or any combination thereof) on which such defibrillators should be required;

(C) the training that should be required for air carrier personnel in the use of such defibrillators; and

(D) the associated equipment and medication that should be required to be carried in the aircraft medical kit; and

(2) at airports, the proposed rulemaking or recommendation shall include.—

(A) the size of the airport at which such defibrillators should be required;

(B) the training that should be required for airport personnel in the use of such defibrillators; and

(C) the associated equipment and medication that should be required at the airport.

(d) **Limitation.**—The Administrator may not require automatic external defibrillators on helicopters and on aircraft with a maximum payload capacity (as defined in section 119.3 of title 14, Code of Federal Regulations) of 7,500 pounds or less.

(e) **Special rule.**—If the Administrator decides that automatic external defibrillators should be required at airports, the proposed rulemaking or recommendation shall provide that the airports are responsible for providing the defibrillators.

Sec. 5. Limitations on Liability.

(a) **Liability of air carriers.**—An air carrier shall not be liable for damages in any action brought in a Federal or State court arising out of the performance of the air carrier in obtaining or attempting to obtain the assistance of a passenger in an in-flight medical emergency, or out of the acts or omissions of the passenger rendering the assistance, if the passenger is not an employee or agent of the carrier and the carrier in good faith believes that the passenger is a medically qualified individual.

(b) **Liability of individuals.**—An individual shall not be liable for damages in any action brought in a Federal or State court arising out of the acts or omis-

sions of the individual in providing or attempting to provide assistance in the case of an in-flight medical emergency unless the individual, while rendering such assistance, is guilty of gross negligence or willful misconduct.

Sec. 6. Definitions.

“In this Act —

(1) the terms “air carrier,” “aircraft,” “airport,” “interstate air transportation,” “overseas air transportation,” and “foreign air transportation” have the meanings such terms have under section 40102 of title 49, United States Code;

(2) the term “major air carrier” means an air carrier certificated under section 41102 of title 49, United States Code, that accounted for at least 1 percent of domestic scheduled-passenger revenues in the 12 months ending March 31 of the most recent year preceding the date of the enactment of this Act [April 24, 1998], as reported to the Department of Transportation pursuant to part 241 of title 14 of the Code of Federal Regulations; and

(3) the term “medically qualified individual” includes any person who is licensed, certified, or otherwise qualified to provide medical care in a State, including a physician, nurse, physician assistant, paramedic, and emergency medical technician.”

In-Flight Medical Event Report

Revised October 1998

This data collection is being conducted pursuant to the Aviation Medical Assistance Act of 1998. The act directs that a major air carrier shall make a good faith effort to obtain information on persons who die on an aircraft of the carrier including any person who is declared dead after leaving the aircraft as a result of a medical incident that occurred on the aircraft. **Use of this form should be restricted to reporting passenger/flight crew medical events that result in death or the threat of death.**

PLEASE PRINT

Patients's Name* _____ Age _____ Date _____

A/C Type _____ Origin _____ Destination _____

Diversion ☐ Yes ☐ No City _____

Assisted by

- | | | |
|---|---|--------------------------------|
| <input type="checkbox"/> Flight Attendant | <input type="checkbox"/> Physician | <input type="checkbox"/> Nurse |
| <input type="checkbox"/> EMT | <input type="checkbox"/> Ground-based Med. Advice | |
| <input type="checkbox"/> Other _____ | | |

Medical Data - Presenting Signs & Symptoms

- | | |
|---|---|
| <input type="checkbox"/> Chest Pain | <input type="checkbox"/> Impaired Consciousness |
| <input type="checkbox"/> Impaired Breathing | <input type="checkbox"/> Convulsion |
| <input type="checkbox"/> Absent/Irregular Pulse | <input type="checkbox"/> Sweaty/Clammy |
| <input type="checkbox"/> Other _____ | |

Resuscitation/Monitoring Equipment Used

- | | |
|--|--|
| <input type="checkbox"/> Stethoscope | <input type="checkbox"/> Defibrillator |
| <input type="checkbox"/> Blood Pressure Cuff | <input type="checkbox"/> Not Needed |
| <input type="checkbox"/> Airway | <input type="checkbox"/> Not Available |
| <input type="checkbox"/> Oxygen | <input type="checkbox"/> Shock Delivered |
| <input type="checkbox"/> CPR Performed | <input type="checkbox"/> Monitor Only |
| <input type="checkbox"/> Other _____ | |

Medications Used _____

