

THIS WEEK

The real reason to fear flying

Wilson da Silva

MORE airline passengers are dying from heart attacks and other medical emergencies than in plane crashes. The latest figures from the US Federal Aviation Administration (FAA) suggest that the number of in-flight medical emergencies has doubled in the past decade.

The FAA's data show that there are 14 000 medical emergencies each year on the nine major US airlines, which carry 65 per cent of all passengers flown by American carriers. Applied across all airlines in

flights, a figure that translates into about one death per million passengers.

Although the problem has increasingly been discussed by aviation doctors—often behind closed doors—the FAA study has forced the issue into the open. Last month the aviation subcommittee of the US House of Representatives began hearings into the adequacy of in-flight medical care in the US, where aircraft generally carry fewer emergency medical supplies than in many other countries.

Eric Donaldson, the outgoing president of the Airline Medical Directors Association,

send electric shocks into heart muscles that have stopped working, have been used 109 times. On 24 occasions, passengers had their heart rhythm restored.

"Defibrillators will not save every victim of a heart attack, but they will give them a chance that would not otherwise be available," Donaldson told *New Scientist*. "If you are travelling at 30 000 feet and someone has a heart attack, it would take at the very least 20 minutes to get back to the gate. After 16 minutes, the chances of resuscitating someone who's gone into cardiac arrest are virtually nil." Donaldson and cardiologist Michael O'Rourke of the University of New South Wales in Sydney will publish their survey of the use of defibrillators by Qantas in the journal *Circulation* later this year.

The pressure on other airlines to carry similar equipment is growing. The death last year of a 37-year-old businessman during a United Airlines flight from Boston to Salt Lake City triggered a series of damning newspaper articles on airline safety. The victim, an avid sportsman, died while being tended by three doctors, a nurse and a paramedic. They could do little without the drugs or the defibrillator that might have saved the patient's life.

American Airlines, which carries some 80 million passengers a year, has decided to introduce defibrillators and enhanced medical kits from 1 July. Some 2300 of its chief stewards have been trained to use the equipment. Later this year, the International Civil Aviation Organization, the UN body that regulates air safety standards worldwide, will begin its own study of in-flight emergencies.

The British airline Virgin Atlantic and Air Zimbabwe already carry medical defibrillators. Hong Kong's Cathay Pacific has recently said that it intends to introduce defibrillators, while British Airways and Scandinavian Airlines say they are considering such a move.

While no one knows why the in-flight death rate has soared since 1988, there are a number of theories: most of the deaths occur on long-haul flights, and the number of passengers taking these has doubled in the past decade. Additionally, more elderly people are now flying. Some doctors speculate that the exertion of carrying heavy baggage before a flight, plus the excitement of holiday travel, may increase the risk of heart failure. □



Life saver: but defibrillators are not carried on many aircraft

Charles Thatcher/Tony Stone

the US, this is equivalent to 15 emergencies a day—at least five times the number found in the last FAA study, between 1986 and 1988, which revealed an average of two to three emergencies a day on US airlines.

While each airline has its own definition of an emergency, most cases refer to difficulties requiring a request for help from passengers with medical expertise.

Overall, an estimated 350 passengers die each year on board planes operated by American carriers. By comparison, an average of 118 passengers a year have died in air crashes on US soil since 1978.

Data for carriers outside the US reveal a similar picture. In the year to March, British Airways recorded one medical emergency for every 11 000 passengers. Australia's Qantas Airways says that it has an average of three emergencies a week. About five passengers a year suffer cardiac arrest and die on Qantas's international

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an international professional body, and general manager of aviation health services at Qantas, testified before the subcommittee on the importance of carrying heart defibrillators. Not only do they save lives, they also reduce the number of diversions in response to medical emergencies. Qantas carries heart defibrillators on its long-haul flights, as well as medical kits with a range of drugs and medical tools. Its 345 chief stewards are all trained to operate defibrillators.

In the five years since they were introduced by Qantas, the defibrillators, which