# Air travel is safe and getting safer – whatever else you might have read
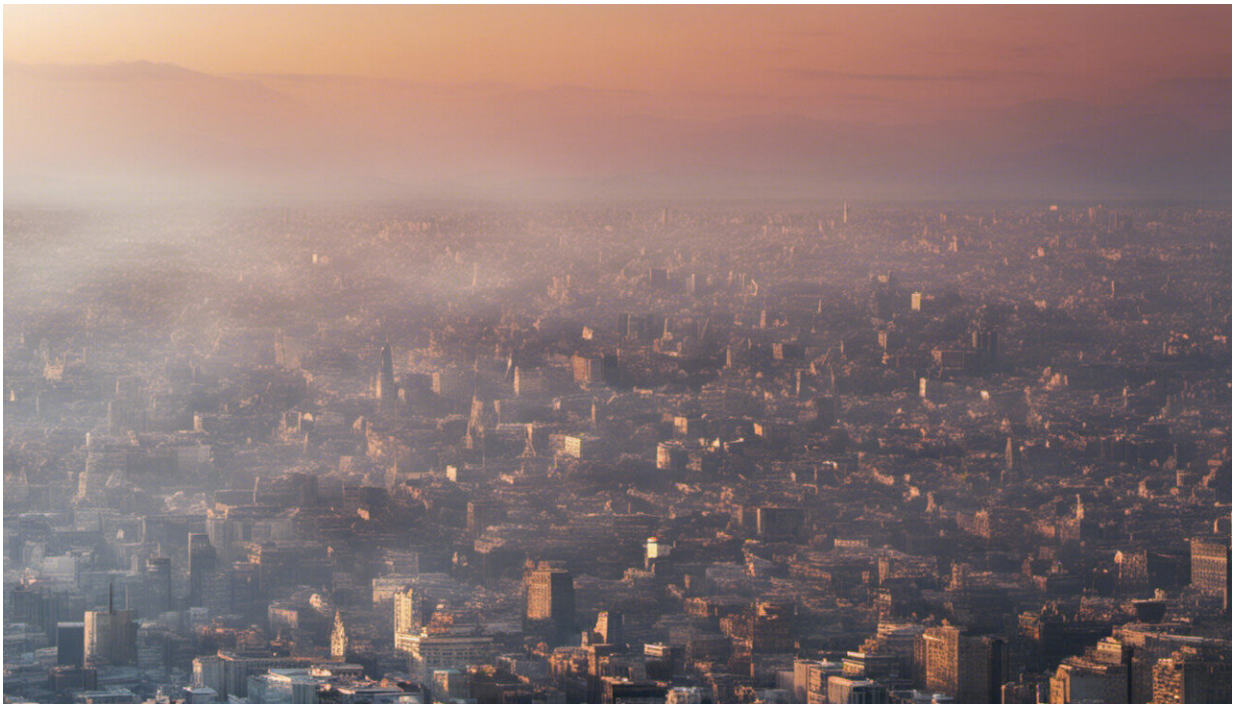
January 15 2015, by Simon Bennett



Credit: AI-generated image ([disclaimer](disclaimer))

If you've been following the news it might seem like there's been a lot of air crashes recently. It might seem that flying has become a risky business.

In a society with a free press and a great number of publications, the

likelihood that bad things will happen can be overstated to the point where the public begins to think and act irrationally. Nick Pidgeon, Roger Kasperson and Paul Slovic describe this phenomenon in their 2003 book, The Social Amplification of Risk, where individuals, social groups or institutions such as the press act as "amplification stations", heightening or dampening certain aspects of the message leading to different interpretations.

For example, the disappearance of Malaysia Airlines flight MH370, the shooting down of Malaysia Airlines flight MH17, the loss of Air Algérie flight AH5017 and most recently Air Asia flight QZ8501: the hyperbolic reporting surrounding these events can induce feelings of dread. *In extremis*, a routine activity such as hopping on a plane can become stigmatised to the point where the facts and figures surrounding its relative safety are misinterpreted or ignored.

As another example, in the energy sector far more workers are killed mining coal than are killed operating nuclear power plants. Yet because of the association of civilian nuclear power with nuclear weapons, and because of the stigmatisation of nuclear power generation from the 1960s onwards – amplified by accidents such as Three Mile Island, Chernobyl and Fukushima and environmentalists' media-savvy campaigns – many believe the opposite to be true.

In the same way that a handful of nuclear accidents had an outsize influence on the perception of nuclear energy's safety, so the loss of flights MH370, MH17, AH5017 and QZ8501 have influenced how safe people perceive commercial aviation to be.

## The numbers don't lie

This has led to, and is fuelled by, headlines such as "After MH17 And Two Other Plane Crashes, Is It Still Safe To Fly?" and many others in a

similar vein. Aviation journalist David Learmount observed: "The 2014 Malaysian disasters… have twisted perceptions of airline safety". The subsequent loss of AirAsia flight QZ8501 in the last days of December will only have heightened those concerns.

However, despite these high-profile disasters and the media coverage around them, last year was one of the industry's safest. According to Flightglobal's report, last year's global fatal accident rate of one per 2.38 million flights makes 2014 the safest year ever, following one accident per 1.91 million flights in 2013, one per 2.37 million in 2012, one per 1.4 million in 2011 and one per 1.26 million in 2010.

According to the Aviation Safety Network, of aircraft carrying more than 14 passengers and excluding sabotage, hijacking, and military accidents, in 2014 there were 20 crashes accounting for 692 fatalities – one of the lowest accident rates on record, even if the number of casualties is up on recent years, the highest since 2010.

So why do we think the opposite? Roughly one-third of passengers are what the industry calls "nervous flyers", who tend to assume the worst. The academics suggest that individuals either dampen or amplify risk signals. Some find the thought of not being in control unnerving, others are content to trust the unknown strangers – pilots, controllers, dispatchers, loaders, fuellers, engineers, regulators – who make it possible. Trust issues induce negativity. The tone of post-disaster newspaper headlines, especially those in many tabloids, border on alarmist. Such hyperbole is also capable of influencing some people.

It's true that flying is not without risk: flying several hundred people tens of thousands of feet above the earth at close to the speed of sound in an environment subject to turbulence and low temperatures (-55°C) in a pressurised aluminium tube packed with fuel and potential ignition sources simply cannot be without risk. Fortunately, thanks to the

superhuman efforts of those working at the daily grind of [commercial aviation](#), flying is remarkably safe.

Following the September 11 attacks in 2001, many Americans stopped flying. This switch to *terra firma* produced a spike in transport-related deaths. Why? Because flying is safer than almost every other mode of transportation. Had the defectors stuck with aviation there would have been fewer deaths. Ironic. By far and away the most risky form of transport is by motorcycle, which is [more than 3,000 times more deadly than flying](#). Travelling in a car or truck is about 100 times more dangerous, while taking the train is twice as deadly as flying.

Clearly, failing to perceive where the real risk lies, or misconceiving risk where there is none, can have deadly consequences. It is not flying that kills, but fear of flying.

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