DANGER IN THE AIR

18 June 2022

When flying as a passenger in a commercial jet aircraft is there any danger in breathing in the air? Although you will be told aircraft air is pretty clean – cleaner than the air in your home and office, is this always true?

Except for the Boeing B.787 Dreamliner, commercial aircraft pump all the air we breathe from a place deep inside each jet engine, only separated from hot jet engine oil by seals that get worn and should be replaced at regular intervals but owing to the cost of doing so these intervals in maintenance have tended to become longer and longer. When these seals become worn, toxic contaminant particles and gas can now get from the oil into the aircraft air in increasing number. The poisonous gas carbon monoxide, certain other potentially toxic compounds including organophosphates in small amounts, and finally ultrafine particles are found in aircraft air – unfortunately, none of these are large enough to be stopped by filters. The airline industry appears not to have investigated these issues nor has it provided reliable evidence. The poisonous items in the aircraft air vary in concentration according to how worn the sealing systems have become. On occasion, so many contaminants enter the air, a '*fume event*' occurs – here the air may have started to smell and can become visibly hazy. The only way to find out the true state of aircraft air is to fit equipment that can continuously monitor and record the presence of these toxic items in real time. This is urgent, as a growing number of people (passengers, flight attendants and pilots) have been and are getting ill. They present with a number of unusual but distressingly persistent complaints that affect many parts of their body in particular the brain and nervous system. Many affected staff have been told officially they must be imagining this. Meanwhile in 1999, this group of illnesses was published as *Aerotoxic Syndrome*.

In order to alleviate this state of affairs, medical protocols designed by experts should be in place, and equipment such as oxygen and other remedies should be provided to sufferers both in the aircraft and when they land. Those patients who have suffered should not be discounted. They should be offered what medical support there is both for them and their families. Meanwhile the design fault that allows incoming air anywhere near hot jet engine oil needs to be re-designed in all aircraft jet engines in the future.

Abstract published in the public interest on 18 June 2022 @ 1100 UTC by: 'A Group' Flight Attendant Deanne DeWitt Freise with 30 years of experience investigating and advocating for improving cabin air quality in aircraft. **Captain John Hoyte, Chairman Aerotoxic Association The Charity (2007) Former BAe 146 Training Captain john.hoyte@aerotoxic.org & Captain John Lind former US Aviation insurer assessor & A Group spokesman & Advocate crewadvoc8@yahoo.com**