



**Global
Cabin Air Quality Executive**
(GCAQE)

GCAQE Press Release

Immediate release

24 September 2009

**‘RESEARCH SHOWING AIRCREW AND PASSENGER RISK FROM EXPOSURE TO
ENGINE BLEED AIR IGNORED BY AIRLINE INDUSTRY’**

New research undertaken by Dr Peter Julu, consultant Neurophysiologist at the Breakspear Clinic in Hertfordshire, the Royal London Hospital and Aalborg University in Denmark shows autonomic nervous system damage connected to organophosphate exposure from aircraft cabin air contamination.

This research follows a very extensive body of evidence and published data supporting an overwhelming link between crew and passenger chronic ill health following exposure to oil fumes and contaminated air in aircraft cabins. Areas covered are not limited to but include, damage to the neurological system, respiratory system, brain cell damage and chronic neurotoxicity.

The GCAQE and a growing body of international experts express concern that the British Government and many other aviation industry bodies continue to state there is no evidence showing a link between oil fume exposure and ill health, despite clear recognition of the many health and safety issues identified internationally. ASHRAE, one of the main research air quality bodies in the world has recommended that the introduction of air monitoring systems to all aircraft be investigated and for research to take place into filtration systems. Currently 100% of the air comes from the engines totally unfiltered.

Fume events are reported to occur by the UK Government COT committee in 1% of flights, with the US Federal Aviation Administration stating fume events fail to be reported by aircrew and airlines as required.

In addition to ongoing maintenance issues related to oil seal leakages, fume events occur as part of the design of how air is bled from the engine into the cabin air supply and are therefore seen as acceptable and normal. The acceptance that exposure to oil fumes is a normal part of flight needs urgent review.

Statements by the aviation industry assuring the public that cabin air meets all available standards and poses no health or flight safety risk is not substantiated by the available evidence and is putting lives at risk. This evidence has been repeatedly ignored by Governments globally and the aviation industry.

Research spanning back over 50 years repeatedly shows very significant flight safety and health/toxicity concerns related to exposure to substances in aircraft jet engine oils. The US Navy recommended in 1989 that one major oil, an oil still in use today for civilian aircraft should not be used by the US Navy due to its highly neurotoxic effects.

The British Government acknowledged correctly in 2005 that there are no set Government safe levels for the mixture of substances being found repeatedly in contaminated air identified in aircraft cabins.

As such the current UK Government requested air monitoring studies trying to identify what chemicals are found at particular levels, cannot apply ground based safe levels as they are not applicable in the unique environment of an aircraft cabin.

The GCAQE calls for the aviation industry and Government to direct it's energies into fixing the problem rather than the continual denial that has spanned decades.

Additionally the GCAQE calls on Government's to stop further funding of research by industry funded organizations who cannot be said to be independent. Independent research already has established the hazards of contaminated air and urges immediate actions to be taken to prevent further serious compromising of crew and passenger health and flight safety.

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Notes to Editors:

1. GCAQE comprises some 20 organisations in 3 continents and represents around 500,000 airline pilots, crew and engineers. In the UK, both the Independent Pilots Association (IPA) and Unite the Union are members of the GCAQE.
2. GCAQE researcher, former pilot and PhD student, Susan Michaelis recently published the 844 page 'Aviation Contaminated Air Reference Manual' (www.susanmichaelis.com) documenting the history of the hazards associated with synthetic jet engine oils and hydraulic fluids leaking into aircraft cabin air supplies. Copies are available from selected public libraries or from www.susanmichaelis.com. The work was said to be 'ground-breaking and seminal work' by the Royal Australian Air Force.
3. All commercial jet aircraft supply breathing air for passengers and crews taken directly from the engines and supplied unfiltered to the passenger cabin. This air, known as 'bleed air' is known to become contaminated with hazardous chemicals present in synthetic jet engine oils and hydraulic fluids. These chemicals include the organophosphates 'tricresyl phosphate' and 'tributyl phosphate'.
4. The history of the hazards associated with synthetic jet engine oils and hydraulic fluids leaking into aircraft cabin air supplies have been a concern since the 1950's. Appropriate research, called for in 1977 following the documented incapacitation of a crew member, has never been undertaken.
5. US Navy studies from 1961 identified serious toxicity hazards associated with breathing engine oil substances and similar studies in 1989 called for research into the toxicity of the 'overall toxicity of the combined combustion byproducts' of the oils rather than the individual substances. This still has not been done.
6. Additional published papers / information available at:
<http://www.aopis.org/ScientificReports.html> ,
<http://www.gcaqe.org/presentations.html>
<http://www.welcomeaboardtoxicairlines.com>
<http://www.aerotoxic.org>

A global coalition of health and safety advocates committed to raising awareness and finding solutions to poor air quality in aircraft.

www.gcaqe.org

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