



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

The Aims and Objectives of the GCAQE are:

A clean aircraft air supply:

We recommend that aircraft manufacturers incorporate bleed-free technology on future aircraft types and that regulators (EASA, FAA, CASA, TC, etc.) require the current fleet to be equipped with air cleaning technology by a date to be determined.

Air supply monitoring:

We recognise the need to define appropriate chemical markers of air supply contamination, to implement continuous monitoring onboard, and to develop procedures for crew to respond to elevated levels.

Existing regulations to be met:

We call on regulators to enforce existing regulations, including an air supply without harmful or hazardous concentrations of gases or vapors, reporting of smoke/fume events, and proper maintenance follow-up. We also call on regulatory bodies with expertise in occupational health and safety to work with aviation regulators to ensure that crewmembers' health and safety is best protected.

Preventive measures to reduce the risk of air supply contamination:

We call on aircraft and component manufacturers to develop design features that are proven to reduce the frequency of oil and hydraulic fluid contaminating the air supply system (e.g., improved seal design, etc) and for regulators to require airlines to implement them.

Crew/operations manuals to include information on air supply contamination:

We call on airlines to acknowledge the potential for air supply contamination and to provide crewmembers with information on chemical contaminants to which crews may be exposed, symptoms, and standardised checklists, procedures, and oxygen usage.

Access to maintenance records:

We call on the regulators to require airlines to provide access to relevant aircraft maintenance records to enable affected crewmembers to determine if the air supply was contaminated, and if so, with what.

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

www.gcaqe.org

C/o Independent Pilots Association, The Priory, Haywards Heath, West Sussex, UK. RH16 3LB
T: +44 1444 441149 F: +44 1444 441192 E: office@ipapilot.com

Airlines to use the least toxic oils:

We call on the regulators to require airlines to use the least-toxic commercially available engine oils, based on known toxicity and the type of toxicity testing described below, to minimise the health impact if oil does contaminate the air supply system in-flight.

Health impact of exposure to be properly assessed:

We recognise the need for inhalation toxicity research to be funded, and to be carried out by independent researchers, to properly investigate the health impact of inhalation exposure to pyrolysed engine oils with an emphasis on the chronic neurotoxic effects (e.g., difficulty concentrating, memory and communication problems, difficulty multitasking, etc.) reported by crews. The toxicity of oils should not be defined according to dermal and ingestion toxicity studies that assess peripheral neuropathy and paralysis when, by definition, aircraft occupants are exposed via inhalation and report chronic neurotoxic symptoms. We also call for an epidemiological survey of crewmembers to properly assess the health impact of exposure to contaminated cabin air.

Ready access to information on medical evaluation and treatment:

We recognize the need for a comprehensive medical protocol to be readily available to crewmembers and their physicians, and for physicians to have access to any onboard air sampling data to assist in diagnosis and treatment.

In addition, we recognise that aviation maintenance workers are also impacted by these exposures, and that turbine engines maintained with the same oils have additional applications such as oil and gas production, marine, and military vehicles. The spirit of the aims and objectives described above apply equally in these other fields.