PRESS RELEASE

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Immediate release

GCAQE evidence shows contaminated cabin air is real and present threat.

The European Aviation Safety Agency, (EASA) protects aviation industry’s short-term business interests and ignores health and flight safety of aircrew and passengers.

Despite the European regulatory requirement to develop aircraft designs that better protect the health and safety of passengers, EASA believes the link between contaminated air exposure and health effects is inconclusive and therefore cannot take any action to address the problem. However, the agency in doing so chose to ignore virtually all supporting evidence, including:

- Exposure to heated jet engine oils was found to be highly toxic by the military in 1954;
- Reported cases of crew impairment / incapacitation in flight as a consequence of contaminated air exposure;
- University of Washington engine oil additive toxicity research;
- University of Nebraska organophosphate toxicity blood testing research. While the toxicity of the organophosphate TCP in the engine oil has been known since the 1930s, recent blood sampling studies have shown that 50% of passengers in normal flight showed exposure consistent with the organophosphate in the oil;
- Air accident bureaus like the AAIB (UK) findings and call for contaminated air detection equipment (as are actually already required by EASA & FAR regulations);
- PhD thesis (Dr Susan Michaelis) -‘Health And Flight Safety Implications From Exposure To Contaminated Air In Aircraft.’
- PhD thesis (Dr Kasper Solbu) Airborne Organophosphates in the Aviation Industry;
- Jet engine oil lubricant manufacturer raising health and toxicity concerns with EASA.
Germany’s BFU reports partial pilot incapacitation from fumes after takeoff

BUT ‘EASA finds no reason to act on jet oils leaking into aircraft cabin air’

The Global Cabin Air Quality Executive (GCAQE), representing 150,000 aircrew and turbine workers globally, is very concerned at the continued global aviation industry and government push to minimize or deny that there is a real and present threat related to contaminated air.

The GCAQE has gathered sufficient evidence to show that there is a very significant flight safety and health risk, with industry and the even more astonishing denial no longer acceptable.

Recently the German Bundestag advised that the problem was small, being dealt with and it was anyway a problem for the international community, not Germany alone.

Despite this typical (and illogical) official minimization, the German Federal Bureau of Aircraft Accident Investigation (BFU) recently reported pilot partial incapacitation after take off in November 2011, with fumes evident. The organophosphate TOCP was found in the pilot's blood after flight.

The Australian aviation regulator CASA, recently released its' report on contaminated air and likewise totally inappropriately minimized the issue, ignoring much of the evidence and clearly protecting the aviation industry’s interests.

“It’s simply not acceptable for EASA to have blatantly misinterpreted the regulations and rules, saying there is no evidence of a serious problem requiring immediate action” says Dr Susan Michaelis, the GCAQE Head of Research.

“This has been going on for decades and the powerful co-ordinated industry wall of alliance is no longer acceptable. They can’t all continue to ignore the ever-accumulating evidence, pass the buck and pretend it’s not happening. We had hoped EASA would look at the evidence objectively, however we can clearly see this has not occurred. This problem has gone on unaddressed for 60 years and is even expected to get worse with increased engine operating temperatures in modern aircraft, which are an attributing factor to the toxicity of the oils.”

GCAQE Co-Chair Captain Tristan Loraine says the “aviation industry pressure to suggest that this is an international problem requiring international solutions pushes responsibility on EASA, yet EASA has in fact just indicated that it's not their problem.”

“Whose problem is it?” Loraine asks, adding, “one wonders if EASA would rely on tobacco companies’ insights into whether cigarettes can cause cancer.”

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ENDS

Notes to Editors:
BACKGROUND

Regulators ignoring duty of care, evidence and precautionary principle despite flight safety and health risks from toxic cabin air.

With the exception of the Boeing 787 Dreamliner, all commercial jet aircraft are designed to take unfiltered breathing air for passengers and crews directly from the engines.

This ‘bleed air’ has been known since the early 1950s to become contaminated with hazardous chemicals present in synthetic jet engine oils, including the organophosphate tricresyl phosphate (TCP) and breakdown products of heated oils.

The European Aviation Safety Agency (EASA) has accepted unrelenting pressure from the global aviation industry lobby, by finding there is no need to take action now in order to protect the health and safety of airline passengers and flight crew, in relation to the already 60 year-old problem of synthetic jet oils leaking into the aircraft air supply.

The review was undertaken by EASA aimed to collect information from stakeholders on the contaminated air issue. Yet equally EASA acknowledged the ‘vast majority’ of fume events was associated with abnormal leakage of engine oils into the passenger cabin.

EASA set out to ‘present its understanding’ of the contaminated air problem so as to enable it to make a decision on whether it needed to take action to protect crew and passenger safety by undertaking a change to the regulations. The Global Cabin Air Quality Executive (GCAQE), representing over 150,000 aircrew, does not consider EASA has acted appropriately. The GCAQE in-depth review of the information presented to EASA and EASA’s assessment of the information, show the Regulator has a clear lack of understanding of the health and flight safety implications by knowingly continuing to allow passengers and aircrew to breathe oil via the air supply.

Based on EASA’s claim that it cannot take action as there is information both ways with no common consensus, Captain Tristan Loraine GCAQE Co-Chair, commented that ‘surely EASA cannot expect the European aviation industry to acknowledge that there is a health and flight safety problem related to breathing jet oils? We had hoped EASA would look at the evidence objectively, however we can clearly see this has not occurred, despite this problem having gone on unaddressed throughout the industry for 60 years.’

Despite the fact that EASA has issued regulations related to contaminated air in the past, it fails to enforce these very same regulations today in order to protect the health and flight safety of both, passengers and aircrew. Instead EASA has relied upon the airline, oil manufacturers and aerospace industry lobby groups in concluding that there is no problem. EASA has, like many, strongly relied upon studies such as the UK Department for Transport- initiated Cranfield University cabin air monitoring study, which even the peer reviewers found was ‘highly unsatisfactory’ and inadequate. The study reported there was nothing to worry about, yet it found TCP in 23% of flights, of which none experienced an actual ‘fume event’. This proves TCP is present even in normal flight!

EASA and the FAA have additionally both failed to enforce the existing regulation that requires contaminated air detection systems to be fitted to aircraft. CS & FAR 1309 (c) has long required that a warning indication must be provided to the crew to alert them to any unsafe system operating condition requiring appropriate corrective action so as to minimize crew errors which could create additional hazards. Oil leaking into the air supply is an example of such a condition,
yet at present all that is available to detect leaking oil is the pilot’s or crewmember’s nose.

Despite the European regulatory requirement to develop aircraft designs that better protect the health and safety of passengers, EASA has suggested it cannot support this unless health effects related to contaminated air are conclusive. However the agency has chosen to simply ignore virtually all the evidence.

REFERENCES

EASA Decision No. 2012/001/R of 27/01/2012 on termination of rulemaking task 25.035 ‘Cabin air quality on board Large Aeroplanes’ without amending EASA regulations: http://easa.europa.eu/agency-measures/agency-decisions.php

The GCAQE is the lead international organisation attempting to address these matters on behalf of aircrew worldwide.

1. The GCAQE comprises some 20 organisations in 3 continents and represents around 150,000 airline pilots, cabin crew and engineers.


3. Aircraft using ‘bleed air’ to supply air to the cabin enable oil to leak into the air as a function of the design of using a system relying on air pressure that allows oil to leak at transient power settings, along with oil seal wear and failure.

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 to update the early findings, called for in 1977 following the documented incapacitation of a US Air National Guard crewmember, has never been undertaken.

5. Researchers at the University of Washington in Seattle are currently developing a blood test to detect biomarkers for TCP exposure, the additive used in most current engine oils used in turbine aircraft today. A recent paper titled ‘Development of diagnostics in the search for an explanation of ‘Aerotoxic Syndrome’ provides details on this research.

http://dx.doi.org/10.1016/j.ab.2010.04.032 The paper states ‘Exposure to TCP isomers through leaks of engine gases into the cabin area of aircraft is currently the leading scenario for the cause of Aerotoxic Syndrome.’

6. Recent tests being undertaken at the University of Nebraska have found that 50% of airline passengers showed exposure to tri-o-cresyl phosphate: http://www.sciencedirect.com/science/article/pii/S0041008X1100238

8. US Federal Aviation Regulation (FAR 25.1309c)
   1970:
   2007:


10. The first known successful legal case in the world found that oil was ‘harmful to the lungs’. The Legal documents available in this case to date include:

**DOCUMENTARIES AVAILABLE ON THIS SUBJECT:**

- Welcome Aboard Toxic Airlines;
- Angel Without Wings
- Broken Wings:
  Available at: http://www.factnotfictionfilms.com/doco.html

**WEB RESOURCES**

- GCAQE: http://www.gcaqe.org
- OHRCA: http://www.ohrca.org/
- AFA: http://ashsd.afacwa.org/?zone=/unionactive/view_article.cfm&HomeID=1396
- Aerotoxic Association: http://www.aerotoxic.org