



opening speech

Contaminated air protection conference

P TYLER

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An earlier version of this opening speech was presented at the British Airline Pilots Association Contaminated Air Protection Conference, held in London on 20–21 April 2005.

Unlike every other contributor to this conference, I am not an expert in anything. Indeed, as a newly retired politician I am — by definition — a totally ignorant layman, a professional amateur.

But even members of parliament have their uses. In December 1999, I received a disturbing report from Sweden which stated that, on 12 November, an unidentified toxic gas almost caused a catastrophe on a BAe 146 aircraft operated by Braathens Malmö Aviation.¹ With apologies, I repeat what I later reported to the House of Commons:

“On the first leg of the three-part trip, the cabin attendants felt strange and experienced incredible pressure. One attendant described the experience as like a ‘moonwalk’. On the second leg, the discomfort returned, and the two pilots experienced it too. On the third leg, to Sturup Airport, the cabin manager realised something was seriously wrong, went forward to the cockpit before landing, and found that both pilots were wearing their oxygen masks. The captain was so near to blackout that, in his own words: ‘... feeling dizzy and groggy despite the oxygen ... I had instructed the first officer to take over and land the plane.’

The Swedish Board of Accident Investigation, the airline and the aircraft engine manufacturers all treated the incident as very serious, as well they might. The initial investigation pointed to a leak of a potentially toxic engine lubricant. I was anxious to establish whether that was an organophosphate.”²

And that is how I became involved in one of the most extraordinary, and alarming, mysteries of our time. Having already spent several years campaigning for a comprehensive inquiry into the compulsory use of these most dangerous substances (originally developed by the Nazis for chemical warfare), up come organophosphates in yet another risky set of circumstances.

Since then, I have pressed successive ministers to insist on international action to get definitive answers to the host of questions that this and so

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many similar incidents raise. You will hear more details as this conference proceeds. In particular, you will be given details of the only authoritative and independent investigation we have seen so far, undertaken by the Senate of the Australian Parliament. We are extremely fortunate to have former Senator Woodley, who secured and chaired that Inquiry, with us [at the conference]. He will tell you that aircrews of the BAe 146 aircraft were undoubtedly medically affected by contaminated air and that it was found to be a serious air safety issue.

And yet this conference is really the first occasion that brings together a huge range of international experience and expertise to address these issues. The Building Research Establishment (BRE) event held in London in 2003 avoided inviting any union or independent medical and scientific contribution, and that commercial gathering of the industry unsurprisingly concluded that there was no problem.

John Smith, MP, and I decided that the persistent reports of potentially dangerous incidents demanded a far more thorough investigation than the BRE could provide. Hence, my warm welcome to you all to this conference, so efficiently organised by the United Kingdom pilots union, the British Airline Pilots Association (BALPA).

I should emphasise that BALPA has gone to great lengths to make the examination as comprehensive and unbiased as possible, inviting every leading airline, aircraft manufacturer, lubricant manufacturer, regulator and every person known ever to have had an input into the issues of contaminated air in aviation — whether from the industry or an independent outsider — to make a presentation.

Experts on the various medical symptoms (which appear to have similar medical characteristics to those reported in flight crews and passengers) have also been invited. I myself have been heavily involved on behalf of those who have suffered acute and chronic illness among the troops who served in the 1991 Gulf War and the farmers who have used organophosphates to dip sheep.

I am pleased to tell you that everyone who wished to present a paper has been accommodated — nobody can say that they were not given a chance to have an input.

There have been disappointments. I am frankly amazed that the UK Civil Aviation Authority (UK CAA) declined to present a paper, stating that it was “unable to field a suitable paper that might add to the medical and/or scientific focus of the conference”. It may be encouraging to conclude that it did not think that it could do better than the contributions already on the conference program, but we should not feel reassured that the UK CAA is on top of the problem.

Clearly, there are still a variety of options on the possible medical effects of exposure to lubricant vapour and mist exposure. I understand that there are some in the industry who deny that there are any medical effects immediately post-exposure, or in the longer term. Some even suggest that the lubricant is safe to bathe in for many hours, and only by ingesting it in large quantities would there be a problem.

It is of considerable concern to all responsible observers that many in the aviation industry — such as the Aerospace Medical Association, some major manufacturers and many airline medical departments — are not here today to listen to these expert presentations. I hope, nevertheless, that the conference will be a turning point in such apparently complacent attitudes.

Although many major UK airlines are not represented here, I am delighted to welcome United Airlines, which is the first airline to fit high-efficiency particulate air filters in all of its aircraft. I suggest that it is again demonstrating its corporate responsibility and duty of care by participating in this conference.

The aviation regulation JAR 25.831 clearly states that: “the air must be free from harmful or hazardous concentrations of gases or vapours” and also that passengers and crews should not suffer “undue discomfort or fatigue”. I am yet to be

convinced that all airlines fully comply with this regulation: no doubt the lawyers in the audience may have something to say about that.

As a reminder of the problem that we are examining, let me make three brief points:

1. Most “exposure events” go unreported by aircrews. The 2002 BALPA survey found that 106 pilots had experienced over 1,600 exposure events due to air contamination linked to engine oils or hydraulic fluids, but the UK CAA recorded less than 100 events.³ This is an issue that BALPA has raised with the UK CAA but the latter chose to disbelieve the data rather than check it out or act on it. This underreporting featured in the findings of the Australian Senate Inquiry. It was suggested by the Swedish Air Accident Investigation Board (and by others) that such exposure events should be re-examined and collated at an international level. To date, this has not happened.

2. We are expected to believe — despite what crew members’ doctors will tell you over the next two days — that what flight crews and passengers are being exposed to on commercial aircraft is too low in quantity to have any harmful or long-term effects. This industry position is maintained despite the fact that the UK CAA acknowledged to the House of Commons on 27 April 2004 that “it did not consider the presence of other substances and effects on low-level exposure” — in other words, it does not know what the effects of low-level exposure are but claims that it is safe. Later, in October 2004, the Minister of Transport was forced to admit to me in the Commons that “the Aviation Health Unit, which was funded by the Department, is currently looking into the potential long-term health risks associated with contaminated cabin air”. It is difficult to know whether this is a case of buck-passing or “un-joined-up” government.

3. And then we come to the vexed issue of public information. Should passengers be told when they have been accidentally exposed to contaminated air, or not? At present, airlines instruct their crews NOT to inform passengers, unless they ask for help. We know from other studies (not least with

organophosphate sufferers) that some people are more susceptible to serious illnesses than others. Surely, this is a human rights issue? Passengers should be informed, and they cannot be expected to self-diagnose their medical conditions unless they know that they have had a chemical exposure. Those unusual smells on commercial aircraft are often linked to serious illnesses, as you will hear during this conference.

From my personal perspective, this issue has been buried for nearly 30 years by those with vested interests — and it now needs to be addressed as a matter of extreme urgency.

I gather that BALPA has a research proposal with the Aviation Health Working Group, in association with leading university departments, and hopefully this will receive the funding required.

The UK CAA has in the past, I understand, relied on papers published by Marshman in conjunction with British Aerospace (marked as “the data used are the property of BAe systems” and “restricted commercial”) in an effort to prove that all is well.^{4,5} That, too, is scarcely reassuring.

Independent research is the only legitimate way forward. Vested interests and commercial pressures cannot be allowed to dominate the investigations, when the risks are so obvious.

So, on a final note, let me set out the core issues, as I see them.

I believe that this could be a disaster waiting to happen — if both a pilot and a co-pilot blacked out as a result of this contaminated air problem, the consequences could be horrendous.

Leaving the responsibility for monitoring and investigating incidents of ill health among flight crew with the airlines would be like asking poachers to take on the job of gamekeepers.

Since 2000, I have been raising in Parliament the concerns of flight crews and passenger groups with regard to incidents of pilots and co-pilots who have suffered from polluted air supplies. From Australia to the United States, to Sweden and to the UK,

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there have been alarming cases of engine lubricant leakage, in vapour and mist form, into the cabin atmosphere. The presence of the extremely poisonous organophosphate chemicals in these lubricants alerted us to the possibility that these were the cause of both short-term and long-term illness among both flight crew and passengers. The expert evidence presented at this conference will underline this risk.

One particular type of aircraft seems to have featured all too often in reported incidents — the BAe 146 — which is used by the Queen's Flight (Prince Philip and Princess Anne are said to have complained of unpleasant fumes on flights in 2000). The risks are all too obvious.

Unless the UK CAA and its international equivalents take a determined initiative to get to the bottom of this problem, the fear will remain that air contamination will one day cause a major disaster: the complacency and buck-passing among those

who have a commercial interest in minimising the threat is no longer acceptable.

I warmly welcome you to this conference, which could not be more timely or significant.

References

1. Swedish Board of Accident Investigation. *Incident on board aircraft SE-DRE during flight between Stockholm and Malmö M County, Sweden on 12 November 1999: Report RL 2001:41E*. Stockholm: Swedish Statens Haverikommission, 1999.
2. Tyler, P. *Hansard*. Column 205WH. London: UK Parliament, 28 June 2000.
3. Michaelis, S. A survey of health symptoms in BALPA Boeing 757 pilots. *J Occup Health Safety — Aust NZ* 2003, 19(3): 253-261.
4. United Kingdom Civil Aviation Authority. *CAA paper 2004/04: cabin air quality*. Gatwick Airport South, West Sussex: UK CAA, February 2004.
5. Marshman, SJ. *Analysis of the thermal degradation products of a synthetic ester gas turbine lubricant*. DERA/FST/CET/CR010527. 2001. (Restricted commercial: data used are the property of BAe Systems.)

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