



## The politics of aircraft health and safety

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During 1999–2000, an Australian Senate Inquiry was conducted into air safety and cabin air quality in the BAe 146 aircraft. Following the year long, in-depth Inquiry, the Senate Committee expressed strong concern about the failure of the aviation industry to solve, what it saw as, a serious health and safety issue, and the Committee's report made numerous recommendations. This paper, prepared by the Chair of the Senate Inquiry, discusses the outcomes of the Inquiry. It concludes that, while there was some agreement on exposures and health effects, the failure of the aviation industry worldwide and its regulators to deal adequately with aircraft air contamination — in spite of the advances in medical science and the research that has been conducted on this issue over the last five years — was a critical failing.

### KEYWORDS

- AVIATION INDUSTRY
- SENATE INQUIRY
- BAe 146
- AIR QUALITY
- AIR SAFETY

## Introduction

I was elected to the Senate of the Australian Parliament in 1993. So, from that time until I retired in 2001, I travelled from Brisbane to Canberra around 20 to 30 times per year — a distance of between 1,200 and 1,400 km. For the first few years, I always travelled with Airlink (a subsidiary of Qantas) and these direct flights were in the BAe 146 aircraft.

For the first couple of years, a flight attendant, Lesley, was regularly on these Brisbane to Canberra and return flights. Lesley was always bright, attentive, chatty and busy (almost fussy). She knew regular passengers by name, was always ready with a word of greeting, and was always helpful and quick-witted. An example of her brightness and other qualities was a private joke which developed between us. On these flights, I often wore an old brown sports coat which I had bought in a second-hand charity shop. When she saw me wearing this coat, Lesley would comment: “Senator Woodley — not that old brown jacket again.”

After a couple of years, I didn't see Lesley again for quite some time — I assumed she was flying different routes or with another airline. That is, until late in 1999 when she attempted to appear before the Senate Rural and Regional Affairs and Transport References Committee in Canberra as a witness in the inquiry into fumes in the BAe 146. Unfortunately, to get to the Senate Committee room where we were holding the hearing, she had to pass along a Parliament House corridor which was being repainted. When she arrived at the Senate hearing she was, clearly, very sick and had to lie down before she could give her evidence. Subsequently, we learned that she was hypersensitive to chemical odours and had long-term, chronic health problems. She gave her evidence in private but was not capable of sustained conversation. Fortunately, we had her written submission. Lesley was pale, withdrawn, halting in her speech, at times vague and obviously unwell.

Lesley is what this conference is all about:

- That she was very sick, there is no doubt.
- That she was a different person with a radically altered personality was painfully obvious to me.
- That she had been affected by her career as a flight attendant we soon learned from her evidence.

So, Lesley represented the human face of the debate which has raged around her condition and that of hundreds of other pilots and flight attendants worldwide since the early 1980s. Consequently, this conference is about finding the answers to a number of questions:

- What has caused this debilitating illness in Lesley and her colleagues?
- Was the illness caused by toxic fumes fed from the aircraft engines through the airconditioning system?
- Do such fumes cause only temporary discomfort and minor health problems, or is there a cumulative effect which not only results in some flight crew having to have time off work but, in some cases, results in permanent incapacity and the inability to fly in aircraft (either as crew or as passengers) without getting sick?
- If fumes in aircraft do cause health problems, is this due to a sensitivity to these fumes alone, or does the person affected develop a sensitivity to other chemical odours as well?
- Is this simply an occupational health problem, or does it also impact on aircraft safety?

(With regard to the issue of safety, I trust that representatives of the aircraft regulators and aviation industry are present at this conference and that they are not asleep. The Senate Committee was very critical of the casual attitude of the Australian regulator, the Civil Aviation Safety Authority (CASA), and of its reliance on what the airlines, British Aerospace and Mobil Oil told it.)

It was these questions which led to the decision of the Australian Senate to investigate air safety and cabin air quality in the BAe 146.

## Australian Senate Inquiry

First, I should explain a peculiarity of the Australian federal parliamentary system: for about the last 25 years, the political party that forms government by having a majority in the House of Representatives has not had a majority in the Senate at the same time. This is due to the two Houses having different ways of electing representatives and the sophistication of the Australian voting public which, when it elects a government to office, also elects to restrict this government's power by changing its vote in the Senate.

Due to this situation, in 1999 the Senate decided to conduct an inquiry into air safety and cabin air quality in the BAe 146 because the Government did not have the numbers to prevent it from going ahead, could not control the terms of reference, and could not predetermine what the final report would recommend. In any case, the report (and its conclusions and recommendations) was accepted by all of the members of the Senate Committee — including government members. Once the mass of written and oral evidence was sorted through, they expressed strong concern about the failure of the industry to solve this serious health and safety issue.

The report was tabled in the Senate in October 2000 and I retired in July 2001. I have tried to remain informed about the issues involved but I'm sure there will be some developments of which I am not aware. This conference has certainly revealed how much more advanced the medical science is since 2001. The disappointing thing, however, is that those who should be more aware than I am, such as representatives of the airlines, manufacturers, regulators and government, are not present (except for a few exceptions). We are grateful to those who have come.

## Submitted evidence

Now I want to give you an idea of how we handled the submissions received:

- the written submissions reached almost 1 m high when stacked on top of each other but, because of the amount of material, the Senators were not able to read every submission. However, the permanent staff of the Committee did;

- a representative sample of the written submissions was selected and the authors were invited to support their submission with oral evidence;
- all of the evidence presented by the airlines, British Aerospace, Mobil Oil, the regulators and the unions was read and cross-examined;
- public hearings were held between November 1999 and August 2000;
- a number of private hearings were also conducted because some witnesses were either in the process of making claims for compensation, or they feared that their jobs would be under threat if their evidence to the Committee was made public (their fears were well founded);
- by means of video conferencing, Dr Jean-Christophe Balouet from France and Dr Christiaan van Netten from Canada were interviewed, as well as a flight attendant from Perth; and
- Ansett Airlines arranged for Committee members to inspect modifications that they were making to improve the airflow in the cabin of the BAe 146 at its workshop in Brisbane. Of all the airlines, Ansett was the most cooperative (Qantas did not go to the same lengths in presenting its evidence, and National Jet Systems was sometimes quite hostile during its presentation of evidence).

Although most witnesses were willing to cooperate with the Committee (they had little choice as the Senate has the powers of a court), there were a couple of occasions when attempts were made to mislead our members. On those occasions, we learned to beware of the bureaucrats — both public servants and bureaucrats in private enterprise.

## Collating the evidence

The Senate Committee system in Australia is well established and effective (although it remains to be seen what will happen after July 2005 when, for the

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first time in 25 years, the Government will have a majority in both Houses of the Australian Parliament). It should be said that none of the Committee members were experts in the subject matter of many of the inquiries being conducted, but all members were skilled at sifting through the masses of often contradictory evidence.

We rejected the proposition put to us by some that the Committee should not make any recommendations unless it had 100% proof of its findings. This proposition is nonsense, as there is nothing in life of which we can be 100% sure and, as responsible parliamentarians, we often had to choose between conflicting evidence. In any case, there were a number of things about which the experts did agree, namely: occasionally fumes enter jet aircraft through the airconditioning system; these fumes may cause temporary discomfort; a number of aircrew had experienced short-term health problems; and, occasionally, oil leaks in the engines and hydraulics could be the source of discomfort and health problems.

However, there were many issues about which they did not agree, including: the long-term health effects; whether there is such a thing as aerotoxic syndrome/multiple chemical sensitivity; whether toxic particles from Mobil Jet Oil II could enter aircraft through the airconditioning system; and whether we are dealing with a health issue or a health and *safety* issue.

During the Senate Inquiry, the Committee members noted a number of anomalies in the evidence:

- the airlines had gone to great lengths to modify the aircraft if this was only a *minor* problem (especially Ansett Australia, which spent about A\$7m);
- a significant number of aircrew have had to give up flying altogether due to long-term and chronic health problems (this problem was obviously causing more than short-term problems and temporary discomfort); and
- the aircraft regulators appeared to play down the safety aspects of the problem in the face of their own regulatory regimes which clearly indicated that safety issues were involved.

Indeed, with regard to safety, one only has to read some of the evidence to be amazed about the casual attitude towards safety which was, at times, expressed. The following is an extract from the evidence of Captain Frank Kolver who, in 1997, was involved in a serious incident during a night descent into Melbourne (after having piloted a freight flight from Sydney). The flight crew at the time was Captain Kolver, a co-pilot and a senior captain in the jump seat who was carrying out crew monitoring:

“During the latter stage of the descent, shortly after passing 10,000 ft, I smelt strong oily odours and fumes in the cockpit. Some three to four minutes later, after making a directional change of 25 degrees, it was necessary to make another directional change in the opposite direction of about 10 degrees. I had great difficulty trying to do this because I felt it would roll the aircraft to an excessive angle towards becoming inverted. This was followed by considerable difficulty in flying the aircraft and concentrating on making the approach to land. I became confused and was not quite sure what was going on at the time, but realised I was having some sort of difficulty so I asked the first officer to take over flying the aircraft. He did so and continued to land safely.”

With regard to health, the evidence given by Captain Kolver at the hearing was also significant and his evidence was similar to that of many others:

“For the next 10 days or so I felt as if I was having a continuous hangover with a constant headache. This was accompanied with a feeling of strong pressure on the top of my head. At night, if I got out of bed I had difficulty in standing upright. When I travelled in a motor vehicle, the headache would get worse and after 20 minutes I would get nauseous and have to stop and get out for some relief.

During this period I was on sick leave and, for the next two months, my health slowly improved to moderate continuous headaches and later mild headaches with a constant pain in the left or right temple area. Several medical examinations, blood tests and a CT scan gave no indication of any medical disorder or problem.

At the time, and prior to this incident, I was medically and physically fit and had no sickness or virus of any kind.”

The worrying thing about Captain Kolver’s evidence is the way in which the airlines, manufacturers and regulator went to great lengths to try to discredit both this evidence and a subsequent report by the Bureau of Air Safety Investigation (BASI).<sup>\*</sup> For example, Captain Siebert of National Jet Systems (the aircraft operator) told the inquiry that Captain Kolver:

“... became dizzy and recognised he had some vertigo, but he certainly was not incapacitated. He formally handed control across to the first officer, which is a standard operating procedure between the crew, and the first officer went ahead and landed the aeroplane ... The first officer never smelt anything and was not affected. The supernumerary pilot, in his first report to the company, said that, yes, he could smell it and felt a bit nauseous but was unaffected generally. There is a slightly different interpretation put on it in the final report from BASI.”

I am sure that the flying public, if it could read the evidence from Captain Kolver, would not agree that he was “not incapacitated” and would be concerned about the attitude of the operator. The assertion by Captain Siebert that BASI gave “... a slightly different interpretation” in its report is, I believe, grossly misleading. In fact, BASI referred its report to CASA for urgent attention and the “implementation of suitable countermeasures”.

The Committee was deeply concerned that CASA did not treat the incident or BASI’s report seriously, and it concluded:

“The Committee believes that CASA erred in rejecting the finding of Occurrence Brief No 199702276 dealing with the incident involving Captain Kolver published in September 1999. The Committee was not provided with a substantive reason for this action by CASA. The

Committee believes that CASA should now accept the BASI/ATSB recommendations and develop an action plan for implementing them.”

Subsequently, we translated our criticism of CASA into Recommendation I and expanded our conclusion into a comprehensive series of actions that we believed CASA should take.

However, this was not the only time that the Committee was concerned about what it regarded as attempts to mislead it. The evidence of one medical expert, a Dr Robert Loblay, was dubious in the extreme.

Dr Loblay did not make a written submission to the Senate Inquiry but simply phoned a Committee member and offered to attend the public hearing in Sydney. His rather irregular offer was accepted without reference to me as chairman. He turned up in Sydney and gave his “evidence” which consisted mostly of scandalous attacks on the other medical experts who gave, or were to give, evidence. For example, he described the qualifications of a Dr Mark Donohue as bogus, which was untrue. He inferred that Dr Donohue’s evidence should be viewed with suspicion because he practised what Dr Loblay called “alternative medicine” — which, in fact, is mainstream medicine, even if some consider it as “alternative”. He attacked the testing done by a Dr Richard Teo in the area of neurobehavioural toxicology as unreliable and useless. He dismissed the work done by Associate Professor Chris Winder because, he asserted, he “frequently leaps” to conclusions about the symptoms of neurotoxicity in those affected. He inferred that aircrew who had linked their health problems to toxic fumes in the BAe 146 were caught up in a kind of “mass hysteria”. Dr Loblay’s assertions about these medical experts can be summed up by the following quote:

“I think the sort of misinformation that has been circulating amongst staff, as a result of the activities of Dr Donohue and colleagues, is endangering the situation more than would have

<sup>\*</sup> The Bureau of Air Safety Investigation’s functions were transferred to the Australian Transport Safety Board (ATSB) in 2000.

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been the case if people had a more sensible, down-to-earth approach.”

If Dr Loblay was seeking to reassure the Committee that there were no problems with fumes in the BAe 146 (and other jet aircraft), his testimony had the opposite effect. The Committee members were convinced that it was not Dr Loblay who had a “sensible, down-to-earth approach” but that the evidence presented by the other medical experts who had been interviewed was much more credible.

This was especially so when the Committee discovered, after Dr Loblay’s appearance (he did not reveal it at the time of giving evidence), that he had been a witness on behalf of insurance companies in a number of court cases dealing with compensation for affected aircrew. However, he did place on record that he had invited himself onto the Ansett Committee which was investigating the problem of fumes in the BAe 146.

I am sure that it won’t surprise this audience, either, if I tell you that the reluctance to settle claims for compensation by the insurance industry has also influenced this debate. For example, the Committee received evidence from a former flight attendant, Ms Alysia Chew, including a transcript of the judge’s findings in her case. Ms Chew was awarded compensation on the basis that her career as a flight attendant had aggravated a pre-existing condition of glandular fever or a viral infection. However, the judge rejected any suggestion of multiple chemical sensitivity caused by toxic fumes from the aircraft in which she had worked. It interested the Committee members that the judge relied heavily on the evidence of Dr Loblay and a Dr Carroll. I have already described how Dr Loblay operates, but I should also explain our concern about Dr Carroll, because of a possible conflict of interest. We learned that Dr Carroll was the doctor to whom another claimant in Queensland was referred for assessment and treatment. He was also a witness in the hearing before the Queensland Compensation Tribunal, in which he gave a negative report about the claimant. However, the Committee’s concern was raised most of all when it learned that Dr Carroll was a

consultant to Ansett Australia — the defendant in the case before the Tribunal.

As a consequence of this and many other cases, the Committee recommended that the (federal) Minister for Transport, in consultation with state ministers, should appoint a retired judge to review unsuccessful or inordinately delayed employees’ compensation cases and report to Parliament.

I think you can understand now why the title of this paper is “The politics of aircraft health and safety”. It is more about politics, power and money in the Australian aviation industry than it is about medical evidence, medical treatment or medical science. From my meetings with delegates to this conference, I understand that aircrew and their supporters in other countries have been subjected to the same harassment, denigration and demotion as those in Australia. An almost standard response these days is that, as soon as someone complains of fumes in aircraft, they are sent to a psychiatrist for “assessment”. One report about an Australian pilot compared her condition to reports of witchcraft in the fifteenth century.

## Other air safety reports

While the Senate Inquiry was being conducted, the United Kingdom House of Lords was also conducting an inquiry into various aspects of aircraft health and safety. I met in London with the Chair of that Committee and with the public servant who was the Committee Secretary — a most charming gentleman, who never left the Chair’s side apart from a few minutes during lunch when he went to the toilet. While he was away, the Chair of the Committee confided in me that she felt she was being “conned” by the bureaucrats and, having read the House of Lords report, I believe she was.

The first draft of the Senate Report (the Chair’s draft) was written by a public servant who was a staff member of the Committee. I had to approve this first draft before it could be considered and debated by the other members of the Committee.

When I read it, I was horrified to read the conclusions and recommendations because they seemed to me to be an apology to all those who wanted to prove that there was no real problem. I had to rewrite parts of the report to express the views which I knew the Committee members held about the evidence that they had received. The report was then debated in great detail by the Committee, and every conclusion and recommendation was approved by every member.

I can't give you the details of the conclusions and recommendations because that would take too long. However, the following is a summary:

- further research should be undertaken in those areas where it was felt that further information was needed (if the Committee had had the information (in October 2000) which has been made available at this conference, it would have been able to recommend that far less research was needed);
- all modifications which were found to reduce fumes in the aircraft should be made compulsory for all BAe 146 aircraft;
- CASA should rewrite the regulations that relate to maintenance, air quality standards, monitoring, reporting and the grounding of affected aircraft, if necessary, to take into account the problem of fumes in aircraft;
- CASA should reassess its dismissal of the BASI report into the Frank Kolver incident and take action to fulfill the BASI recommendations;
- there should be a judicial review of all unsuccessful and inordinately delayed insurance claims;
- there should be a review of the standards for Mobil Jet Oil II; and
- new high-grade filters being developed at the time should be fitted to all commercial jet aircraft flying in Australia (this should be mandatory).

## Conclusion

It is almost four years since I retired from the Australian Senate and I continue to be concerned about this issue. That's why I responded positively when I was invited to this conference. However, the Australian Government and CASA have never responded properly or adequately to the Committee's report. One wonders, "Who cares?" I certainly do and so do most of the people at this conference. The inaction of government and the aviation industry reminds me of a golf story and this is my conclusion:

One day Moses and God were playing golf and God said to Moses at the number one tee, "You can hit off first." So Moses lined up the ball and hit it 300 m, straight down the middle of the fairway. God turned to Moses and said, "Not bad for a mortal!" Then Moses said, "Your turn." So God lined up the ball, gave it an Almighty swipe and sliced it into a group of trees at the edge of the fairway. The ball bounced off half a dozen tree trunks and then dribbled to the margin of the fairway, next to a bank of sand where there was a rabbit warren. Before the ball stopped, a rabbit hopped out of a hole, picked up the ball in its mouth and began to hop towards the green. Just then, a large eagle flew over and, spotting the rabbit, flew down and picked it up in its talons but, as it flew over the green, a bolt of lightning struck the eagle: the eagle dropped the rabbit; the rabbit dropped the ball; and the ball fell into the hole. God turned to Moses with a large grin on his face and said, "What did you think of that?" Moses replied, "Are you going to play golf or ARE YOU GOING TO MUCK AROUND ALL DAY?"

The moral of this story is: some people in the aviation industry and some of the regulators seem to think that they are God and so can take risks with the lives of their employees and customers. But they are not God and this is not a joke. It is time they got serious, stopped mucking around and started to play the game seriously.