



COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

SENATE

RURAL AND REGIONAL AFFAIRS AND TRANSPORT REFERENCES COMMITTEE

Reference: Air safety - BAe146 cabin air quality

THURSDAY, 17 AUGUST 2000

CANBERRA

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SENATE

RURAL AND REGIONAL AFFAIRS AND TRANSPORT REFERENCES COMMITTEE

Members: Senator Woodley (*Chair*), Senator Crane (*Deputy Chair*), Senators Ferris, Forshaw, Mackay and O'Brien

Participating members: Senators Abetz, Bartlett, Boswell, Brown, Calvert, Chapman, Coonan, Crossin, Eggleston, Faulkner, Ferguson, Gibson, Harradine, Hutchins, Knowles, Lightfoot, Mason, McGauran, McKiernan, McLucas, Murphy, Payne, Tchen, Tierney, Watson and West

Senators in attendance: Senators Crane, Forshaw, O'Brien and Woodley

Terms of reference for the inquiry:

To inquire into and report on:

- (a) the impact of Airspace 2000 on airspace users, operators and providers, including its safety implications;
- (b) the application of competition policy to services provided by Airservices Australia;
- (c) the impact of location specific pricing; and
- (d) the examination of air safety, with particular reference to cabin air quality in BAe-146 aircraft.

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Committee met at 4.06 p.m.

CHAIR—I welcome everyone to this public hearing of the Senate Rural and Regional Affairs and Transport References Committee and declare the hearing open. The committee today holds its eighth public hearing in its inquiry into air safety with particular reference to cabin air quality in the BAe 146 aircraft. The inquiry was referred on 22 March 1999 and the committee is likely to report this year—I can say September.

A *Hansard* transcript of the proceedings is being made and *Hansard* will be available shortly in hard copy format from the secretariat, or via the Parliament House Internet homepage. It should be noted that the committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the order of the Senate of 23 August 1990 concerning the broadcasting of committee proceedings. Before the committee commences taking evidence, let me place on record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee and evidence given before it, and I underline this. Parliamentary privilege means special rights and immunities attached to the parliament or its members and others necessary for the discharge of the function of the parliament without obstruction and without fear of prosecution. Any act by any person which may operate to the disadvantage of a witness on account of evidence given by him or her before the Senate, or any committee of the Senate, is treated as a breach of privilege.

This afternoon the committee will take evidence from Mr Richard Best who has made a late a submission to the committee on this inquiry. The committee has previously resolved that this submission be published. I welcome Mr Best.

BEST, Mr Richard, Private Capacity

CHAIR—Do you have any opening remarks? If you would like to make an opening statement, the committee would be very happy to hear that and then, at the conclusion of the remarks, I will invite members of the committee to submit questions to you.

Mr Best —As put forward in the submission I put to you, I was formerly a district airworthiness manager with the Civil Aviation Safety Authority at Bankstown Airport. But I was involved in the certification for Australian purposes and issued the first certificate of airworthiness for the BAe 146 300 series aircraft for East West Airlines in approximately 1990. I became aware of problems with clean air in the BAe 146 because of consultation with two ladies who had been adversely affected by the air quality in the 146. As a consequence of that, I made a submission internally within CASA to bring it to the appropriate attention of the people that should know about it. I received no follow-up on that submission, and it appears to me from reading the transcripts and the evidence that have been put before your committee that I do not think the proper procedure has been followed in assessing the total situation. I just wanted to bring it to the attention of your committee that I thought there should be other appropriate action brought in place.

CHAIR—When you say appropriate action and there was not any follow-up, you are talking about follow-up within CASA?

Mr Best—I never received any follow-up within CASA. I did speak to one of the professional engineers in Canberra who was charged with looking at it early in the piece. He left CASA and I am not quite sure what happened after that date. I received no follow-up until the date when I was redundant in December last year.

CHAIR—So December 1999?

Mr Best—Yes, that is right.

CHAIR—Normally would you have received follow-up? Could you give us an idea of how the process should work within CASA?

Mr Best—To take a step backwards, I made the report to the District Airworthiness Manager and the District Flying Operations Manager in Adelaide who were charged with the responsibility for National Jet Systems. The two people who had talked to me who were adversely affected worked for that operator. Therefore, I thought it was appropriate that they should do it. It went around the system, because the electronic mail system within CASA is fairly open. Eventually, the engineering experts in central office took the project over and that was the last I heard of it.

CHAIR—Took the ‘project’ over?

Mr Best—The investigation. I would have expected that there would have been a full independent inquiry into the problem. I guess my expectations were really based on past experience in CASA where they had a lot of expertise. They had a world-known aviation laboratory. The previous management had decided, through cost cutting, to get rid of some of the expertise in the laboratory. The understanding was that if CASA required any expertise they would go out and get that expertise, and if they needed materials or whatever they would employ that in so that they could do an independent investigation at any time.

CHAIR—Were you sufficiently alarmed by the report you received that it caused you to make the complaint to CASA? Is there any level of reporting more serious or less serious, or was it simply a standard report that you made?

Mr Best—It was a standard risk observation report, which is an internal mechanism for anyone who becomes aware of an aviation safety problem to address within the network so that CASA can be aware of the problems and take the appropriate action.

CHAIR—Would you call it a safety problem, or would you describe it more as a problem for the health of the people involved? Do you combine the two?

Mr Best—I have talked to a lot of people both in industry and within CASA. While I have seen the CASA submission where they say that they believe it is an occupational health and safety problem, I cannot distinguish that difference, because if the tech crew and the cabin crew were incapacitated so that they could not perform their duties, then it is a safety problem in total. I do not know how you distinguish between safety and occupational health and safety.

Senator FORSHAW—This committee commenced its inquiries in March last year into a range of issues in the airline industry. This was one of the terms of reference. I cannot recall specifically when we commenced the actual hearings on the BAe 146 matters, but they have been going on for some time. Have you been aware of these proceedings throughout that period?

Mr Best—I was not aware of them early in the piece. It was not until I was asked to give an opinion by some of the people who were adversely affected that I became aware of them.

Senator FORSHAW—When were you asked to give an opinion?

Mr Best—I suppose it would have been late last year.

Senator FORSHAW—I notice in your letter that you said you were made redundant from CASA. That was at the end of last year, wasn't it?

Mr Best—In December 1999.

Senator FORSHAW—This issue has been reasonably canvassed in the public arena, and certainly I would expect that employees in CASA, including you, would have been aware of the inquiry. Is that correct?

Mr Best—No.

Senator FORSHAW—You were not aware of it?

Mr Best—No, I had no feedback from the day I put the risk observation report in.

Senator FORSHAW—The risk observation report was lodged in—

Mr Best—About 1998.

Senator FORSHAW—Yes, in the middle of 1998. I note that you said you had no feedback from CASA, but did you follow that up? This committee commenced an inquiry last year. Didn't that alert you to the fact that an issue that you had specifically raised within CASA was on the agenda?

Mr Best—I would have expected CASA to take the appropriate action, and I was alarmed when I saw that CASA seemed to be depending totally on reports given to them by one of the operators.

Senator FORSHAW—Was it your responsibility to pursue the issue within CASA beyond your first—

Mr Best—Not really. My position at Bankstown was in the general aviation sphere. I was the airworthiness manager at Bankstown, and that is in general aviation. Once I highlighted the problem, I would have expected due process just to follow it through.

Senator FORSHAW—You said that you were approached by other people. How did that occur?

Mr Best—There were two ladies who have been involved in the process. They became aware that I had previously had an interest in the 146 with the certification of the aircraft, and they asked me my opinion on both the legislation and the process.

Senator FORSHAW—Could you tell us who those two people were, or is that something you would rather keep confidential?

Mr Best—I would like to have some concurrence from them that it would be okay.

Senator FORSHAW—Okay. Are you able to say whether they are people who have appeared before this committee or made a submission?

Mr Best—I believe they have, yes.

Senator FORSHAW—How did they know to contact you?

Mr Best—I guess they heard my name. One of the ladies I know from squash—I am involved in the administration of squash. I guess she thought that I was sufficiently knowledgeable about the regulations to ask my opinion.

Senator FORSHAW—Was this before or after you left CASA?

Mr Best—It was actually before.

Senator FORSHAW—You stated that you were involved in the original certification in 1990.

Mr Best—That is right.

Senator FORSHAW—I think you state that you actually issued the certificate.

Mr Best—I issued the first certificate of airworthiness for the BAe 146-300 series.

Senator FORSHAW—That is right. Was there any problem that you were aware of or that had been drawn to your attention at that time?

Mr Best—No. As part of the process, I obtained all the major defect reports that were available. These which show potential problems with the aircraft. There was nothing available to us at the time that indicated that there was a problem with clean air. I must say that at that time clean air was basically thought of as carbon monoxide instead of the ingress of all the other materials from the oil system into the aircraft. Therefore, we did not really look at that aspect of it.

Senator FORSHAW—When you say ‘thought of’, are you saying that that was the official position and that has now changed?

Mr Best—I see from CASA’s submission they are indicating that carbon monoxide is the only problem that they see. When you have got, as has been said to me, about 130 people that are adversely affected by something that is in the airflow, then CASA should be looking at it in greater detail. Perhaps they need to really rethink what clean air is. To me clean air means clean air. The basic definition of ‘clean’ should be ‘free of any contamination’. If there is contamination in there that is affecting 130-odd people and causing some of them to lose their livelihood then surely something should be done within CASA to do this as an independent investigation.

Senator FORSHAW—You are expressing a personal opinion here?

Mr Best—Yes.

Senator FORSHAW—What has been put to the committee in evidence from the airlines—if I can briefly summarise, I hope correctly—is that there are standards relating to measurements of the presence of certain materials or the absence of materials in the air and as long as the aircraft meets those standards or is below those limits then it is okay, or it is safe or clean in so far

as it can be clean given that it is advanced that you cannot have totally pure clean air environments.

Mr Best—But if you have got two pilots on a flight deck that are incapacitated going into Brisbane airport—

Senator FORSHAW—I understand that but I am not asking you that question. You mentioned that air should be clean. One of the issues that is before us is that it is submitted that you cannot ever have totally clean air in a confined environment such as an aircraft which draws its air supply across the engines in the way that it does. What the companies rely upon here, they say, as well as the absence of any carbon monoxide, is that the tests that are done show that the levels that have been set according to the standards are not exceeded and therefore in that way they comply with the requirements. Are you saying they do not comply with the requirements or are you saying that these requirements have got to be made stricter?

Mr Best—I think someone has got to review it to see whether clean air in the present context with people that have been affected for their livelihood, whether that definition that was there at the time is appropriate today.

Senator FORSHAW—I understand that. What I am getting at is you were asked in the program on Channel 9 whether in your view these aircraft should be grounded. I quote it correctly: 'Should a plane be flying if it is causing the aircrew to suffer headaches and nausea.' You said, 'I believe not.' Are you actually saying to us that these aircraft should all be grounded?

Mr Best—When I talked to Channel 9 and the *Sunday* program, there were something like 45 or 50 questions asked. Some of those are edited perhaps the way the editor wants to see it. Perhaps there are some people that have a propensity to be affected more than others are. It has always been a problem with the 146 that the engines have been fairly well underpowered. You are asking for it to be fairly stressed all the time. If the engine is going to be stressed all the time there is the likelihood that you could have problems with the seals. Put it this way: in the old days with the 707s there were very few problems with clean air because of where it was taken off on the engines, where you had the bleeds from and what you did with the air. I think you will find that there are more and more reports today of fumes in the cabin, not only from the 146 but from the 767 and even the odd 747. What is happening is that the operators are asking Boeing and the manufacturers for greater efficiencies. I saw a report not long ago where Boeing is going to petition the FAA to be able to recirculate the air even more than it does today because if they use less air that is bled off the engines, it means that they can get greater efficiency. But the point is that you cannot depend on it being clean air all the time because you are recirculating everything that is in there.

I think you will find that there are more and more reports today of fumes in the cabin not only of the 146 but of the 767 and even the odd 747. What is happening is that the operators are asking Boeing and the manufacturers for greater efficiencies. I saw a report not long ago where Boeing was going to petition the FAA to be able to recirculate the air even more than it does today. If they use less air that is bled off the engines, it means that they can get greater efficiency. But the point is that you cannot depend on it being clean air all the time because you are recirculating everything that is in there.

Senator FORSHAW—You said that it is a safety problem. What follows from that in your view? Are you saying that it is of such magnitude that it is unsafe to fly these planes? You mentioned that there are other planes. I was going to take you to this issue, but you have raised it. There have been reports of the Boeing 737s and 767s having similar situations.

Mr Best—Sure. I cannot say definitively whether an aircraft should be safe to fly or not. That has to be left to the appropriate people. All I am saying is that I put into process a line of inquiry which I think should have been followed through a lot better than it was. I think that CASA should be seen, like a cricket umpire, as totally independent. I do not see at the moment that CASA has been totally independent, because they have relied purely and simply on the submissions from operators. If we are looking at the definition of clean air, perhaps they should be going back to the CAA UK and asking them to review it to see whether it is appropriate. The CAA UK are the authority which have authorised the aircraft in the first place, and the responsibility really should flow back to them. It is not up to CASA here to say whether the aircraft is totally safe or unsafe. They have the ability to feed in. Because the aircraft was also certificated under the FARs, perhaps the FAA in the US should also be part of that inquiry.

Senator FORSHAW—My recollection is that we were told in 1998 that the aircraft was re-certified by CASA. Are you able to tell us—

Mr Best—I am not aware of that. But I still go back to the proposition that if 130 people are adversely affected perhaps proper procedures need to be in place. If the cabin crew are going to be affected, they need to be in a position where they can evacuate the aircraft through 50 per cent of the exits in 90 seconds. That is a certification standard under the CAOs. If you cannot do that and you have not got the people to be able to do that, then all those passengers are certainly at risk. If you have got the tech crew being adversely affected, perhaps they need to be putting on their oxygen masks at the first hint that there are fumes in the cabin.

Senator FORSHAW—Is that something that you extend to all aircraft that have—

Mr Best—Sure. If someone is going to be adversely affected when they are operating the aircraft—I cannot talk from an operational point of view because I am an engineer and an airworthiness person, not an operational person—then that aircraft becomes a danger to person and property. The regulations do not say whether it is person or property on the ground or in the air.

Senator FORSHAW—That would suggest that there are a lot of aircraft flying around today that potentially, in your interpretation, are either unsafe or are a major safety problem.

Mr Best—No, I am not saying that at all. I am saying that there is a history now of 130 people with this particular aircraft. CASA should be looking at it independently and dispassionately to determine whether there is a real problem and what should be done to address it.

Senator FORSHAW—Let us for the moment take that up: that people can be looking at the issue. This committee is looking at it, and there are committees in other countries looking at the issue of cabin air quality—not necessarily specifically directed at this aircraft but generally. I am interested in following through on this issue which says that there is a safety problem, and I am trying to understand how that should be measured or viewed across the airline industry. It

would be argued, and has been argued by the companies and I assume this is endorsed by the regulatory body and other regulatory bodies around the world, that this aircraft has a very good safety record if you look at safety in the way that most people do—that is, it has been operational for many years and it has had very few, if any, serious accidents resulting in fatalities. There have been some incidents, and there was a notable incident recently, but given that incidents occur with aircraft reasonably regularly, how should we measure that indication of safety against the issue you have raised?

Mr Best—I am not sure how to answer that in totality, but the point is that, in most other countries, the aircraft is operated on a far shorter sector length than it is in this country. In the UK and Europe, most of them would be lucky if they get more than an hour's sector length. We are using them in this country where they are flying two to 2½ hours at a go, or perhaps even longer. It is Perth to Broome, or Canberra to Brisbane. Perhaps in those other countries, the propensity of the people to be affected by the fumes is not as great, because they are doing a turn-around or transit which might be 45 minutes and therefore the effect is being diluted all the time. I do not know. This is something that you would have to ask the experts. I am just putting a hypothesis there that that may be a situation.

The point is that, regardless, we have a safety culture problem in this country because pilots do not report defects. They are taught from day one when they go to flying schools, 'Don't put a defect on the maintenance release because that will ground the aircraft.' Therefore, the culture is inbred from day one. It takes a heck of a lot to try to turn that around and for people to put defects. The regulations require the pilot to put a defect on the maintenance release in an emergency during the currency of the flight or at least at the completion. The point is that, if they are not putting the defects—and, prior to 1992, you had an order which defined fumes in the cabin as a major defect—and if the fumes are a major defect and they are not being reported, how can the engineers address the situation? In not being able to address the situation, it precludes them from making a submission to CASA. The true scope of the problem has never really been determined.

Senator FORSHAW—There are two other questions following on from that. Are you suggesting there is a culture that goes right across the industry regarding all defects?

Mr Best—Yes, all defects. If you go to any flying school out in the country and you ask the engineer or the bloke who fixed the aeroplanes, 'Does a guy put a defect on the maintenance release?' invariably you will find that it is scribbled on a bit of paper and handed to the chief flying instructor who then determines whether it is a defect to go on the maintenance release. That is not what the regulations envisage or require people to do. Yet we have pilots who say they are totally professional. How can they be professional if they are not following the requirements and putting defects on the maintenance release?

Senator FORSHAW—You mentioned in your letter and also in your earlier remarks that you felt there should be a full independent inquiry. What do you mean by that? This is in relation someone other than CASA doing the inspections or whatever. What are you actually suggesting and who would do that?

Mr Best—As I mentioned before, when Leroy Keith downsized CASA he made the statement that if there were ever a need they would get all the experts needed to address any situation or any given problem. Leroy has gone. There is a totally new management structure in CASA. Perhaps I am a bit hard because I liked the ways of the past and I liked the full investigation, which was seen as being totally independent. I think the people of Australia expect CASA to play it like a cricket umpire and it is the only way it can be done.

Senator FORSHAW—But if it were not CASA who would do the independent work?

Mr Best—CASA has to be involved. It may be that BASI has to be involved. It may need the CAA UK. I am not quite sure whether CASA has even addressed the situation with the CAA UK. I am not a party to that process these days, so I do not know. I would have thought that it was important to go back to the manufacturing and prime certificating country and say, 'We're experiencing problems in our country. We've got a problem where over 130 people have been adversely affected. What are your views on it?' If they could not get some sense out of it then perhaps they would have to go down the line and institute an inquiry themselves to determine the scope of the problem.

Senator CRANE—Mr Best, I was particularly insistent when your letter came in late that you appear before this committee to explain some of the things in it. I have to say that I have some real difficulties accepting some of the things that you have said in your letter and that you have said today. I just do not believe that pilots would deliberately not report a defect when they are the ones flying the aircraft and would be the first to hit the ground if something went wrong. I find that incredible evidence. I would call on you to back that up with some evidence from some of the people who have said this to you. It is a very serious charge, particularly for people like us sitting here. I get more sleep in aircraft than I do in beds flying backwards and forwards from Western Australia, and I have great reservations about that. I would like to see you follow that up or consider what you have put on the public record today. My basic question first of all comes out of the letter. I want to get some sequence in place. When did the incident you are talking about occur? Was it 1999, 1998 or 1997?

Mr Best—1998 was when I raised the risk observation report because I became aware of problems.

Senator CRANE—But what about the incident with the two people? I presume they were crew members. Is that correct?

Mr Best—That is right. One was tech crew and one was cabin crew.

Senator CRANE—When did that incident actually occur? Was it in 1997?

Mr Best—They did not talk to me about one specific incident. They were saying that they had experience over a period of time. I raised the risk observation report so that someone would look at it.

Senator CRANE—Would it be possible for you to find out when the incident—or incidents, if there is more than one—occurred?

Mr Best—I could ask the ladies, but it was over an extended period of time.

Senator CRANE—We have been given evidence that it is the policy of all the people flying BAe 146s that these incidents—smelly socks incidents, as they have been put to us—be reported. During the process, there have been different procedures in terms of the maintenance relating to those incidents, but they are to be reported at the time. I would like to be able to track these from the evidence that has been put down or ask Ansett, National Jet or Qantas what records they have pertaining to those particular incidents.

Mr Best—I do not have the ability to say to Qantas or Ansett, ‘Show me your records.’

Senator CRANE—I am not asking you to do that.

Mr Best—They are required to do it. The regulations require them to report major defects to CASA.

Senator CRANE—I will ask them the question. Please find out from the ladies, if you can, when this series of incidents did occur. We will have the opportunity to ask them whether or not those particular incidents were reported and whether or not they were followed through. I think that is extremely important in terms of information and evidence we need.

Mr Best—There are a number of major defects that have been put into the CASA system and that are available on the web site, which indicate the fumes in the cabin being a problem over four years ago.

Senator CRANE—Yes, I am aware of that. We have had very extensive information put down on the public record by all the operators of BAe 146s in Australia.

Mr Best—All I am saying is that, when Ron Cooper got rid of the CAO 100.8, major defect reporting, a lot of people did not consider some of those aspects that were there prior to that time as being major defects. The problem with a lot of people is in interpreting regulation 51, where you have got two types of major defect: an immediately reportable major defect as distinct from a major defect report which is required to be made within two working days. There is a difference between those two types of major defects, and a lot of people in the industry and the authority did not consider the effect of what was a normal major defect in the normal reporting time of two working days. But your comments before about whether or not pilots are putting defects on the maintenance release has been recognised within CASA going back into the 1980s when Russell Evers, who was a senior airworthiness surveyor at Bankstown, wrote an information sheet, which was distributed widely to industry, about why putting a defect on the maintenance release did not necessarily ground the aircraft.

Senator CRANE—But not every defect instantly grounds an aircraft?

Mr Best—It is their requirement to put a defect on the maintenance release. If it is a major defect, then appropriate investigation has to be taken at that time. But writing a defect on a bit of paper is not putting it on the maintenance release.

Senator CRANE—You use the words ‘major defect’, whereas previously you used the word ‘defect’. In the evidence there are certain defects which can allow the aircraft to fly to get certain things done, and we have examples of that in and around Australia. Obviously, if it is a major defect and you are looking at something like the wing falling off or something serious, I would not think that a plane would be allowed to fly.

Mr Best—I would not think so either. It would be improper if it did. But are people aware enough to differentiate between a defect and a major defect? The point is that the regulations require any defect to be recorded. Then it is up to the assessment process, when they get on the ground, as to whether it becomes a major defect or not.

Senator CRANE—You said to us that pilots were trained and that part of their training and culture was not to report defects.

Mr Best—That is right—on the maintenance release, I said. In lots of flying training schools, they invariably put the defect on a bit of paper and hand it to the CFI, the chief flying instructor. He then determines whether it is a defect to go on the maintenance release.

Senator CRANE—I do not think this is consistent with any evidence we have had, which is why I asked whether you could get the committee a letter from pilots who have been affected in this way, because I find that very difficult. You mentioned a number of times that in December last year you were made redundant. Was that because your job was taken away or was it a voluntary redundancy? What was the situation there? Did you accept a redundancy?

Mr Best—Yes, I accepted the redundancy. It was a change of job, change of structure. They offered me a redundancy and I accepted it.

Senator CRANE—But you had the choice as to whether you left or did not leave?

Mr Best—That is right.

Senator CRANE—I got the impression from what you were saying that you were forced out through a redundancy?

Mr Best—No, I have never intimated that at all.

Senator CRANE—I just want to get that clear on the record.

Mr Best—Sure.

Senator CRANE—When we look at the situation, you say you were the officer who carried out the first model certification for the BAe146-300 series. I think you have already told Senator Forshaw that that is correct. Did you have any involvement with the first of the type certifications of the BAe146 aircraft?

Mr Best—The 100 and 200 series? No.

Senator CRANE—None whatsoever?

Mr Best—No.

Senator CRANE—With regard to the planes that these two people and you identified, do you know whether they were the 300 series or the 100 or 200 series?

Mr Best—I would have to check but I think they were in the 100 or 200 series.

Senator CRANE—So you are talking about a different aircraft to the one that you certified?

Mr Best—The differences are minor.

Senator CRANE—I know, we have had that explained to us. But you are talking about a different aircraft to the one that you certified?

Mr Best—Yes.

Senator CRANE—Also following up the questions of Senator Forshaw, you intimate in the interview at least that these planes should be grounded.

Mr Best—No, I did not say that. I think someone should be looking at the process to see whether procedures should be in place to address the situation if there are fumes in the cabin. I do not know whether they should be grounded or not, and I have said that today.

Senator CRANE—So you were selectively quoted?

Mr Best—I think so.

Senator CRANE—It was on the *Sunday* program I think.

Mr Best—Yes.

Senator CRANE—Have you taken any action to correct that selective quoting?

Mr Best—No, I have not.

Senator CRANE—Is there a particular reason why you have not?

Mr Best—I do not really think it is important. The point is that, if there are people adversely affected, perhaps someone should be looking at it.

Senator CRANE—That is what this inquiry has done. There have been a number of major inquiries into that. People like me and, I believe, other members here and others are getting a very clear impression that what you were saying was that they should be grounded. That leaves a difficult position or a sour taste in the mouth, whatever way you want to put it, that effectively

the *Sunday* program has got away with a major misrepresentation of what you were saying and, until this point in time, there has been no correction.

Senator FORSHAW—I might just add to that, Mr Best. Given your status as a former CASA official and the way in which the program was presented, that proposition being advanced carries with it a lot more weight than might otherwise be attributed to somebody who did not have your background.

Mr Best—Fair enough. I understand your point of view.

Senator CRANE—Correct me if I am wrong, but I got the impression that you were actually saying that, once you went through the process of reporting it, you had no idea of what happened afterwards.

Mr Best—That is true.

Senator CRANE—I am not disputing that. How long were you working for CASA?

Mr Best—Twenty-one years.

Senator CRANE—If you got no response when you had put in a particular concern about an aircraft or a particular incident or something and nothing came back to you, say, within a month, and you are concerned to the level which you are, why wouldn't you follow that through?

Mr Best—I was the manager of one of the busiest airport offices and I had issues that were being raised every day. I did not have time to sit down and look at everything to make sure whether it was right or wrong. I raised it in the forum in which I was supposed to within CASA and I think it is appropriate for CASA to do the right thing and address the issues. If your committee's decision is that they have done the appropriate thing, that is fine. I am not going to sit up and fight you on that. All I have done is to advance a line of thinking that I think is appropriate, because people expect aeroplanes to be safe.

Senator CRANE—I am not trying to fight you. What I am trying to find out is what the procedure is in terms of this. It would seem to be major, and you obviously saw it as a major incident because you put it forward in the right way.

Mr Best—I put it in the appropriate way that CASA expected. I had no feedback. But then again it was not up to me to keep going, chasing the issue.

Senator CRANE—I am not being critical of you, Mr Best. What I am saying is if in fact somebody in your position in a busy job could put reports through and there was no response coming back, one of our recommendations could well be to CASA—and obviously they will want to answer it—that there must be a mechanism put in place that makes sure that a report comes back to the responsible person, in this case you, letting them know that it has been actioned. I just think that is only reasonable. What I am trying to find out is whether or not there is some mechanism, or was this just an isolated breakdown that occurred in the system or is it the normal way business is done?

Mr Best—I do not know. The risk observation report was just an internal process put in place so that if anyone heard of some problem or became aware of a problem they could alert the system. The point is that I put it through to the Adelaide office and eventually Canberra took it over. I am not sure that they have even finished with it yet. I have not been talking to the people in CASA about these issues. They would not see it as appropriate for me to follow up with them on those issues today because I am no longer a CASA officer. It is up to them to do whatever is appropriate.

Senator CRANE—When you put in an incident report, particularly one of a serious nature, would it be normal for them to come back to you with a note or something to say that they had actioned this—not necessarily going into the detail of what they had done—so that you could sleep at night?

Mr Best—I would have thought that would have been appropriate.

Senator CRANE—But did they do it in other incidences? Is this an isolated case when they did not come back to you or did they never do it?

Mr Best—I only ever put one or two risk observation reports in. On one I got feedback. Generally central office would talk to the district office people to work out whether we had a situation. A lot of it was done informally. What they tried to do with the risk observation report system was to formalise it. It was a process that was put in later in time because CASA just wanted to be aware of these situations.

Senator CRANE—I will ask you this, and the answer is obviously no, but I will ask the question anyhow. I had some homework done in terms of this and the follow up. The question I have here in terms of the incident you reported is this: are you aware that when CASA became aware of the incident which occurred in 1997 it contacted the manufacturer, the operators of the aircraft and the UK CAA about the cabin air quality issue and received responses to the effect that the cabin air quality satisfied the relevant certification requirements which are the international requirements? You were never informed of that?

Mr Best—No, I was not.

Senator CRANE—Are you aware that CASA reviewed the certification of the BAe 146 aircraft and advised the committee that it is satisfied that the aircraft meets the design standards applicable at the time of the introduction of the aircraft into the Australian service?

Mr Best—No, I was not.

Senator CRANE—You were never ever informed?

Mr Best—No.

Senator CRANE—Are you aware that the manufacturers have developed a suite of modifications for this aircraft to improve the cabin environment and the Australian airlines have been fitting these modifications to their fleets?

Mr Best—I was aware that modifications were being made to the APU's but I do not know about the engines or the rest of the aircraft. No, I am not aware of it.

Senator CRANE—This is my quick summary and we will have to think things through, but it seems in this particular instance there was a major breakdown in communication between CASA's administration and yourself in your role.

Mr Best—They may not have looked at it after they had taken it over in Canberra and they most probably did not perceive that perhaps an answer should have been made to me. I do not know.

Senator CRANE—It would seem to me, though, that there should be some system in all fairness to you in following this through and doing your duty.

Mr Best—Of course. But my duty as a CASA officer was to make people aware of a safety problem. It is not my responsibility after that to keep hounding them. There are a great number of issues that arise every day in CASA, and CASA have a limited work force. It is up to someone down there to set the priorities. These questions get answered in time, but you cannot expect them to drop everything and come back to do whatever is necessary just because Dick Best put an ROR in. They have to work out their priorities, because they are the people who are charged with setting the agenda and ensuring that aviation is safe.

Senator CRANE—It highlights, though, that in some situations with CASA which we have taken evidence on there is a lack of communication, particularly back to the individuals who sometimes might—

Mr Best—The feedback loop is not always the best in CASA. I must admit that.

Senator CRANE—My final question once again follows up a question asked by Senator Forshaw with regard to the issue of occupational health and safety and the safety of the aircraft. We have been given evidence that there has never been anywhere in the world a major crash in the BAe 146, whether it be in the 100, 200 or 300 series, and that there has never been a major injury or anybody killed.

Senator O'BRIEN—Concorde comes to mind at this stage.

Senator CRANE—Yes, I know. But, Mr Best, it does not mean you are not being vigilant.

Mr Best—I am not aware of any incident. If CASA have said that, I am quite happy with that.

Senator CRANE—We have it from two or three sources that that is the case. I then have great difficulties with this. Sure, there has been discomfort caused to some crew members and what have you. But I fly up and down the west coast and the north-west of WA—and I fly on this side of the country too—and over there I am familiar with what is really is a major safety problem as far as the passengers and those flying this aircraft are concerned. It would be an overreaction to say we should ground it. They would not get services up there for the length of

the strips and things they have. Isn't it really an occupational health problem rather than a safety problem?

Mr Best—I still come back and say that if the tech crew are adversely affected then it becomes a safety problem.

Senator CRANE—With all the hours they have flown and with the millions of tonnes of cargo they have carried?

Mr Best—I still cannot get anyone to tell me what the differentiation is between safety and occupational health and safety.

Senator CRANE—That is what I am trying to find out.

Mr Best—I am not going to make that determination. I have done occupational health and safety courses, I was employed as an airworthiness safety person with CASA and I am afraid I cannot distinguish. I cannot answer your question. I am sorry.

Senator CRANE—That is fair enough. I am not pressing you to answer it, but I am trying to get some clarification if possible. Thank you.

Senator O'BRIEN—I take it that the risk observation report itself is a written report?

Mr Best—Yes, it was.

Senator O'BRIEN—And it goes into the system?

Mr Best—Yes.

Senator O'BRIEN—Did you keep a copy of it? Can you supply us with a copy?

Mr Best—No, I cannot. It would have to be from CASA. I have not kept all those sorts of things.

Senator O'BRIEN—That is fine. In terms of the problem on the BAe 146, the evidence we received from Ansett was that in terms of oil seal leaks in jet engines the BAe 146 was not the aircraft with the worst record as far as Ansett was concerned. Is there any information that you can put to us about your view on that proposition, given what you say about the BAe?

Mr Best—No. All I am saying to you is that I was asked about it by two ladies and I became aware that all these people were affected. I thought it was appropriate that someone, an independent arbiter, look at the situation.

Senator O'BRIEN—If it is true that there are oil seal leaks in other jet engines, that they all have the same air bleed system—that is, through the engines—and therefore that they all run the

same risk of fumes contaminating the cabin air, there might be other reports. Have you had reports made to you about problems in other aircraft or just in the BAe 146?

Mr Best—CASA used to use a media service where they would put media reports around on a daily basis for aviation problems. If you look at that, you will see that there is the isolated case where a 767 or an airbus or something else has had some sort of fumes. I have not heard any reports where the same number of crew are affected on those type of aircraft. I am not sure whether that creates a problem or not.

Senator O'BRIEN—This is a problem that I have discussed with Ansett on the *Hansard*. All the aircraft, as far as we are told, use the same sort of oil.

Mr Best—Mobil jet 2.

Senator O'BRIEN—That is right. Every aircraft has potentially the same problem. That is, if they get an oil seal leak, they are likely to get fumes or worse into the cabin and no filter system will really stop that.

Mr Best—No.

Senator O'BRIEN—Ansett say that BAe is not the worst. Ansett cannot explain why the problems manifest themselves in the BAe 146.

Mr Best—I do not know.

Senator O'BRIEN—The transcript of the interview that you gave to the television crew has you saying this, without a question leading to it:

I still believe there is a problem, any person suffering that is on the flight crew, there is a danger to person and property and therefore, it is a safety risk.

Then the program says—and I am not sure if that is in sequence with that previous statement:
Should a plane be flying if it is causing air crew to suffer headaches and nausea?

Your answer, according to the transcript, was:
I believe not.

What should we interpret that to mean?

Mr Best—I am not saying that the type should be grounded. If there is a particular aircraft that is constantly giving problems sector after sector, then someone should be looking at it. Not only does it create a problem with clean air, but if you have oil ingestion in the airstream, then you could well have a problem with fire resistance if you have a problem with a fire in the cabin because if it is ingesting itself into the cabin materials, you are decreasing the fire rating of the aircraft. That could be a problem if there was a prang or a fire, or whatever.

Senator O'BRIEN—Your flammable materials in parts of the cabin that might not otherwise be there—is what you are saying?

Mr Best—That is right.

Senator O'BRIEN—In another part of the program, the transcript describes you as:

... the CASA manager who certified the BAe 146 300 series jet as fit for service in Australia in 1989.

Is that an accurate statement?

Mr Best—I issued the first certificate of airworthiness. Therefore, that is appropriate.

Senator O'BRIEN—Was it certified by a team and you signed off? Were you the person responsible?

Mr Best—The compliance was established by the engineers at British Aerospace at Hatfield. We went across. Another chap, who has now left CASA, looked at the avionics side. I looked at the mechanical side. We crosschecked their paperwork. We crosschecked the compliance requirements against the Australian certification standards. Everything was in order and, therefore, I issued the certificate of airworthiness.

Senator O'BRIEN—At that stage had that aircraft been certified by the English authorities?

Mr Best—Yes, it had an export certificate of airworthiness issued by the CAA UK. The resident CAA surveyor was on station.

Senator O'BRIEN—What weight did you give to that at the time of certification? Did it say, *prima facie*, 'This aircraft is all right and we just have to check any matters which are specific to Australian requirements that might not be specific to theirs'? Or is there some other factor?

Mr Best—We had to crosscheck because the Australian certification requirements at that time under 1010 and I think 1015, four or five, somewhere there, laid down specific things that had to be addressed. East West Airlines had a full engineering complement at Hatfield to address the issues as well before we got to there. They looked at the Australian requirements as called up in the CAO, which also requires them to look at the country of manufacture requirements. They looked at that. They did not see a problem. My colleague and I did not see a problem. I had heard there were some problems with fumes off the APU. When I heard that there were problems and that there were so many people affected, I thought it was appropriate to put that line into CASA to have the appropriate areas look at it.

Senator O'BRIEN—You are saying what you did in 1998. I am taking you back to what you did in 1989.

Mr Best—I am talking about in 1990. I had no inkling that there were any problems with the aircraft or the airconditioning system from 1993 to 1998.

Senator O'BRIEN—So in 1989, when you certified the 300 series, you had no inkling then.

Mr Best—No.

Senator O'BRIEN—Had it been an operational aircraft for a period in Europe?

Mr Best—It had been, yes.

Senator O'BRIEN—Were there any reports of fume incidents?

Mr Best—No. As I said, I got the major defect reports from the FAA and the British system and I did not see any problems with airconditioning at that time.

Senator O'BRIEN—I suppose it is fair to say that you would not observe any operational problems the way you inspected it.

Mr Best—No.

Senator O'BRIEN—You did not actually inspect it operationally, did you?

Mr Best—No.

Senator O'BRIEN—So you were relying on what you were told.

Mr Best—No, I was relying on certifications and what other people had done.

Senator O'BRIEN—Okay.

Mr Best—If I had identified a problem at that time, I would have asked someone to look at it in closer detail.

Senator O'BRIEN—So if the European authorities had said that there had been some problems with the aircraft, how would that have manifested itself?

Mr Best—I would have fed that back into central office and the certification office in central office would have looked at it to see whether it needed addressing or whether there should have been an airworthiness directive raised against it.

Senator O'BRIEN—Was the size of the engines viz-a-viz the aircraft and its tasks ever a factor considered in approving it for operation in Australia?

Mr Best—No, our professional people down in Canberra at central office had looked at whether it met those parameters, whether the engines would allow them to do the correct missed approaches and all the rest of it and whether it could take off in the appropriate length of runway. They had no problems. They are the experts in it, so it was not a problem for me.

Senator O'BRIEN—Thank you very much. The committee will, I expect, ask for a copy of your risk observation report from CASA. One assumes that they keep those sorts of things on their records if they can find them.

Mr Best—It should be there.

Senator FORSHAW—In respect of the risk observation submission you put in, would you have done many of those during your period of time with CASA?

Mr Best—Not a lot. I was in a general aviation office. If the issues were bad enough there, I would talk to the people in central office and we would get something working. I was not directly involved with the 146. It was not in my office. I used the risk observation report to highlight it to the appropriate people.

Senator FORSHAW—As a general rule, how frequently would those be utilised?

Mr Best—I do not even know that they are using that system any more.

Senator FORSHAW—But in the period of time when you were there, was it something that regularly would be presented to CASA management?

Mr Best—I do not know. You would have to ask people in central office. I am not sure.

Senator CRANE—Can I clarify another point? When you left CASA my understanding is that you were the district airworthiness manager.

Mr Best—That is right.

Senator CRANE—How far did that remove you from the actual certification and the day-to-day running of what you were overseeing? In other words, how long was it since you had been in a high capacity aircraft airworthiness—

Mr Best—I have not been in a high capacity office since I became airworthiness manager of Bankstown in 1990.

Senator CRANE—So eight or nine years ago?

Mr Best—I was in the high capacity office. It was not called the high capacity office in those days. It was just called the Mascot office. They were responsible for Qantas and for East West Airlines. I was involved day to day with East West Airlines. I won the job as the airworthiness manager of Bankstown when we restructured in 1990. I was over there until the day I left CASA.

Senator CRANE—What year did you actually certify the BAe 146-300 series?

Mr Best—It was about 1989 or 1990.

Senator CRANE—Did you go on the *Sunday* program of your own free will, or did they put some pressure on you to go on?

Mr Best—They rang me up to ask me. I saw no problem in them asking a few questions. My opinions on that show were purely personal.

Senator CRANE—Yes, that is not a problem. I was wondering whether there was any pressure applied to you at all, but it seems you went on quite happily and voluntarily.

Mr Best—They rang up. That is the same as Andrew or John O’Keefe ringing up and asking whether I would come down today. I have no problem with that. I came down. If it helps you in coming to a decision, it is appropriate.

CHAIR—Thank you, Mr Best. Are there spare copies of this briefing available? You may like to get hold of it. There is a transcript of the Channel 9 interview in there for you to have a look at. That might be useful.

Mr Best—I have not seen it. Thank you very much.

CHAIR—It is there and it might be useful for you to check it. Thank you very much for your attendance and for your evidence. It is very valuable to the committee. We are very grateful that you have given up your time to give us the benefit of that.

Mr Best—Thank you very much.

Committee adjourned at 5.12 p.m.