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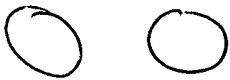
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6

ROYAL COMMISSION INTO BRITISH
NUCLEAR TESTS IN AUSTRALIA

MR JUSTICE J.R. McCLELLAND, President
MRS J. FITCH, Commissioner
DR W.J. JONAS, Commissioner

TRANSCRIPT OF PROCEEDINGS

AT BRISBANE ON MONDAY, 8 OCTOBER 1984, AT 2.04 PM

Continued from 4.10.84 in Sydney

Secretary to the Commission

Mr John Atkinson
GPO Box 4044
SYDNEY NSW 2001

Telephone: (02) 235 3310

THE PRESIDENT: Yes, Mr McClellan?

MR McCLELLAN: I propose to call three witnesses: firstly, Mr William Turner. If he could come forward, please.

MR JAMES: Perhaps while that course is being taken, might I seek leave of the commission to appear for the Australian Nuclear Veterans Association, Queensland, and the Australian Nuclear Veterans Association, South Australia, in addition to the Maralinga and Monte Bello Island Association for which I have formerly been granted leave to appear.

THE PRESIDENT: Yes. Leave is granted.

MR McCLELLAN: Mr Turner, I wonder if you could come forward over here, please.

WILLIAM ARGO TURNER, sworn:

MR McCLELLAN: I am not sure in the move from Sydney whether you have, and the commissioners have, Mr Turner's statement.

THE PRESIDENT: I have not.

DR JONAS: No, I have not.

MR McCLELLAN: The statement, I believe, is here. But I can make arrangements to get it. In the meantime we will start with you, Mr Turner.

Your full name is, I think, William Argo Turner? Is that correct?---That is correct.

I think you live at 9 Winston - - -?---Winster.

Winster - W-i-n-s-t-e-r?---Yes.

Crescent, is it?---Court.

Alexandra Hills?---That is right.

Now, I think that you were, in 1953, a signaller in the Royal Australian Air Force. You were attached to No 6 Squadron, which was 82B air wing, at Amberley?---That is correct.

I think that from there, you were involved in the gathering of radioactive samples by aircraft during the atomic tests known to you then and now as Totem 1 and Totem 2? ---That is correct.

I think the entire operation was known as operation Dead Heart?
---That is correct.

Were you involved at all in the Monte Bello operation?---No.

You were - by the time you had joined the air force, no doubt you had heard about the Monte Bello operation, had you?---I had.

Did you speak with men in the air crew - in your own air crew - who had flown at Monte Bello?---No, not on that.

I think you left Amberley late in September of 1953, and you flew from there, I think, to Woomera, I think. Is that correct?---That is correct.

You were stationed at Woomera for the purpose, I think, of flying duties in and around the Emu Junction, Emu Field tests. Is that so?---That is correct.

I think that your particular role in the tests was to operate an instrument on board the aeroplane which was designed, as you understood it, to measure the level of radio-activity in the cloud?---That is correct.

Now, firstly, can you tell me what sort of aeroplane it was that you were flying in?---A Lincoln.

Was that a twin-engine aircraft?---Four engine.

Four engine, was it? It was a bomber, I think, was it?---Yes.

Can you tell me this: was it a pressurised aircraft?---No.

Did it have any facilities for oxygen on board?---Yes.

Can you describe the nature of those facilities to us?---An oxygen mask.

An oxygen mask?---Plugged into an oxygen outlet.

And what did the mask comprise? Did it just go over your mouth, or over your nose, or - - -?---No, nose and mouth.

Nose and mouth. Did you affix it to your head in any way?
---Yes. It clipped on.

How did you do that?---It clipped on.

It clipped on to what?---On to the ears.

You clipped it on to your ears?---On to the helmet.

On to your helmet?---Yes.

Oh, I see. I take it you were wearing a helmet all of the time?---Practically.

And the oxygen mask, did you normally wear the oxygen mask, or did you only wear it on occasions?---Only on occasions.

What sort of occasions did you wear the oxygen mask?---When exceeding 10,000 feet.

When exceeding 10,000 feet, and was that a standing instruction? ---That is.

And below 10,000 feet, did you not use it at all?---No. It was never necessary.

Never necessary. Now, the instrument that you say that you were responsible for, measuring the strength of the cloud, can you describe that to us, if you would? ---A white box, approximately two feet long, 15 inches high, about 15 inches deep; with a dial and switch which went from X1 to X100, and through three clicks.

Well, did it have a gauge or a dial?---A gauge and a dial on it.

That was a window, was it?---Just a small window.

With a needle?---A needle.

And you say there were three - - -?---Three positions.

Three positions, and how did the positions function? What happened to give you the positions?---It was, oh - if you were on X, it was more or less giving background readings.

So that was very sensitive, was it?---As the strength of the readings increased, though, you switched up from X1, X10, up to X100.

X1, X10 and X100: so there were three positions, and X100 was the highest, was it?---The highest reading.

Were you given instructions as to how to operate this piece of equipment?---Only on that way: the use of the switch as the readings got to maximum.

And who gave you those instructions, do you recall?---No, I could not recall now.

No doubt you were instructed, though, on the ground, along with other fellows, were you?---Yes.

Now, you indicate in your statement that the Totem 1 test you flew, and you flew into the cloud?---That is right.

Do you recall seeing the cloud?---Yes.

What did it look like?---Oh, a rusty - a light-rusty-brown haze.

THE PRESIDENT: Just pausing there for the moment, how long after the explosion did you fly into the cloud?---How long?

How long after the explosion?---I would not know the exact time. We were only given an area to fly over - patrol an area.

MR McCLELLAN: You say in your statement that you were in the cloud for about 45 minutes?---Approximately, yes.

Do you have a record of that, or is that from your memory?
---That is only from memory. All I have is a record of the actual flying time.

I think you have your log book there which does record the flight?
---Yes, that is right.

Perhaps you might look up this particular flight and tell us what time you took off?---On 15/10, 12.20 pm.

12.20 - - -?---Pm.

That is in the afternoon?---Yes.

Do you know, from the time you took off - have you any recollection of how long it might have taken you to contact the cloud?---About three hours - three to four hours.

And how did you know that you were in that cloud? What happened to the instrumentation?---The needle went haywire.

What do you mean?---It went straight - right over on because I had been using it on the X position, and it just went right hard over, so I went on and turned it to 10 and it still went hard over, and it stayed on X100 for practically all the time I was anywhere near the cloud.

So you turned the machine to its maximum?---Yes.

And it stayed - the needle stayed?---More or less the maximum all the time.

Well, you indicate that you were taking readings approximately every 10 seconds?---That is right.

Were you required to write down the information that you got from the readings?---Yes.

What did you write it on to?---A foolscap sheet - a ruled up, foolscap sheet with - - -

Was it part of a manual or a book?---No. Just a loose sheet - - -

Just a loose sheet?---Loose sheets.

What did you record - the time, and the readings?---The time and the readings.

Did you record any details of the aircraft: its location or its altitude?---No.

And when the needle was off the top, so to speak, what reading did you record in the manual?---Maximum.

Maximum?---Yes.

Now, while you were flying this aircraft and taking these readings, do you recall whether or not you were using oxygen?---No, I was not.

You were not, and tell me a little about the ventilation of the aircraft, how was the aircraft ventilated? How did you get your air to breathe?---Never even thought of that. Just through normal aircraft ventilation.

What was that? Were there openings? Were there windows?
---There are windows up round the cockpit area.

Can they be open when the aircraft is flying?---They can be, yes.

Was it common for them to be open?---Depending on the pilot's wish.

And apart from the windows were there other vents?---There was lots of - like gaps.

Gaps in the plane? Not like your modern jumbo?---No.

Was it a very noisy craft?---Very.

And what about round the area such as the doors and the bomb-bay and so on - were they sealed?---They were sealed, they were practically sealed.

Now, you say in the statement that after leaving the cloud for Woomera the crew ate their in-flight rations?---That is right.

What would they have consisted of - food and liquid?---Sandwiches and liquid.

You then say shortly after this we received instructions not to eat or drink anything. Do you mean you received those instructions while you were in the air?---In the air.

How did those instructions come through?---By wireless.

They came through on the wireless, did they, and I get the impression it was too late then, was it?---Too late.

Were you told with the instructions why you were not to eat or drink anything?---No.

Were you ever told why those instructions were given to you?
---No.

Did you surmise anything in relation to that?---We surmised.

What did you surmise?---That there must have been contamination on the hands.

The clothing you say was standard RAAF issue. I wonder if you could indicate just what that was?---Most of us wore underclothing, shirt, shoes, shorts, flying suit, socks and shoes.

You say when you got back to Woomera after that flight, oh, and by the way I should ask you did your aeroplane have any canisters attached to its wings?---Yes, one under each wing.

One under each wing. And the nature of those canisters, do you recall now what they looked like?---Circular, and I am not sure on the diameter or the length, but I surmise they were somewhere round about two feet long.

I trust the commissioners and your Honour may now have - I could now tender it. It can be marked RC 25.

You say after that flight you returned to Woomera and you were taken to one of the empty hangars where a Geiger counter was put over you?---That is correct.

What do you mean by a Geiger counter? Is it a portable instrument?---Yes, hand held.

Who put it over you?---Oh, ground staff, I think.

RAAF?---RAAF.

It would not have been a scientist, could it?---Not that I remember.

Not that you recall. Was the person who put it over you wearing any special clothing?---No.

You say clothing - do I infer from that some of your clothing was required to be removed and put into a pile?---Not on myself and I believe, if I can remember rightly there was only one pair of shoes out of the crew that was ever taken away.

And your other clothing was taken from you and put into a different pile?---Yes.

You stripped and showered and you were then re-checked with Geiger counters?---That is correct.

You say the showering was done as often as it took to bring the reading within normal limits?---That is right.

Did you yourself have to have more than one shower?---Two.

Two. And what about other members of the crew? Did they have to have more than one shower?---One had to have about four.

About four, yes?---Yes, because he had oil in his hair. That was the part they were worried about.

Was it your experience that if you had oil in your hair you got more than the - - -?---So we believed. Oil on shoes, oil on your clothing, anything like that. Wherever there was oil seemed to be the areas that were highly contaminated.

Can you tell me whether Brylcreem or its equivalent was fashionable in 1953?---I do not think so. I think it was more Californian Poppy in those days.

Californian Poppy? That was oily, was it?---Yes, but not as oily as the Brylcreem.

What about oil on shoes? That is oil you mean that people might have picked up walking through?---Yes, around the aircraft and in that area.

Do you recall after you landed what happened to the canisters on the aeroplane wings?---Only one canister did I ever see after that and that was brought into the - - -

I think you come to that in a moment in your statement, but not in that sequence. Do you recall anyone removing the canister from the aeroplane?---No.

You went from the aeroplane into a debriefing situation, did you? ---Yes, more or less.

You say you proceeded to the building that had our flight office and also a room that contained a small atomic oven? ---Yes.

Now we know today of microwave ovens. What did you understand by atomic oven?---An oven that read radiation.

What did it look like?---Like a microwave oven, really.

Was it the size of a microwave, was it?---Yes, about the same size as a microwave except the walls are very thick, three to four inches.

Did it have a door on it?---A door and a - - -

Do you recall what the door was made of?---I think it had a glass centre section.

Did it?---Yes.

You say it had a Geiger counter at the top with about eight figures on it?---About eight figures, yes.

What do you mean a Geiger counter at the top?---Well, it was always ticking over even when nothing was put into it, registering local radiation.

And if something was put into it that was radioactive?---You watched it start turning over.

It did go faster?---Yes.

You say that while you were in the scientist's room after the trip the Geiger counter started to race and the scientist went out and started to check up the passageway with some of the crew and saw several people coming down the passageway carrying one of the sample canisters from the aircraft?---That is right.

Those people carrying the canisters, were they dressed in any special clothing?---A white overall by what I can remember.

And how were they carrying the canister?---On a rod.

On a rod. Attached to the end of the rod?---Yes, they were carrying it on the end of a rod.

Like a poker?---Yes, about six feet long.

Six feet long and the canister was hanging on the end of it? ---Yes, hanging on the end of it.

I see. And were they wearing gloves?---If I remember rightly, they were.

What about on their heads or faces? Did they have anything? ---Nothing I can recall there.

Nothing there?---Nothing special there.

How many men were carrying the canister?---There were about four, I think. There were four of them there if I remember.

Four of them, all dressed the same way?---All dressed the same way.

Do you know whether they were British or Australian?---No.

You say they were told immediately to take the canister out of the building?---That is right.

And you described that, the command being given in fairly colourful language?---Very colourful.

And did they take it out of the building?---Yes, they did, straight away.

Do you know why it was that the scientist required them to take it out of the building?---We saw the Geiger counter on the oven going very, very fast.

That is the only reason you know of?---Yes. It was unreadable.

The oven was unreadable, was it?---Yes.

You indicated in your statement that you do not know whether or not the aircraft was hosed down after the flight?---No.

I assume it was serviced, though?---Serviced, yes.

During that flight were you ever issued with any form of dosimeter or film badge to read radiation?---Not that I can recall.

Tell me, have you ever - apart from when I showed you this about an hour ago - have you seen one of these sorts of things before?---No.

That is a dosimeter of which there is an exhibit - C11.

Now, if I show you exhibit RC12 - that is what is called a film batch - were you ever issued with one of those?---I cannot recall anything exactly like that.

Do you recall anything similar to that?---Not on the first flight.

Not on the first flight?---No.

So, as far as you can recollect, you did not have anything to record radiation exposures with you on the first flight?---No.

You were involved in Totem 2 and you record in your statement what time it was that you left Woomera on that occasion?---Yes.

And I think, again, that has been taken from your aircraft log book which you have with you?---Yes.

This time you flew a similar mission but of shorter duration? ---Yes.

You say you were in the air for about 3½ hours this time? ---Yes.

Whereas you had previously been in the air for 8 hours and 45 minutes?---Yes.

Upon return you went through the same procedure. Now, were you responsible again on this trip for operating the scientific equipment on the aeroplane?---No.

What was your role on the second trip?---I was on the wireless.

When you were on the wireless, did you have any responsibility for telling anyone whether or not you had contacted cloud?---Yes.

What were you required to do?---Just to say if contact had been made and we were proceeding with the mission.

Were you required to report back any of the readings that your instrument was giving you?---No.

Do you recall whether on your first flight, the Totem 1 flight, you were required to report back any level of reading to base?---No, no recording. Everything was taken back what was written down.

On the paper?---Yes. The navigator did the headings, measuring the size. I did measuring the strength.

On the second occasion were you given any food to eat?---No.

Were you given any instructions about eating, in the end?

---No.

What about smoking? Were you able to smoke in the air?

---Well, you can, but it is not the recommended thing in the open air cloud, whereas in civilian aircraft, they are more or less sealed. War-time aircraft are not.

Do you recall whether any of the crew smoked during the course of the flight?---Not that I recall, no.

You say on this flight, however, you were issued with dosimeters to test the level of personal radiation?---This is what I think I remember.

Is your recollection of this device, RC12, or the other one I showed you?---It was not a clip-on one.

I think they are both clip-ons?---The other one.

That one?---Yes, that type, but I do not recall that shape.

You do not recall that shape?---No, not that actual type.

THE PRESIDENT: Well, perhaps we could clear that up a bit more exactly, Mr McClellan. I thought the witness said at the outset of his evidence he had not seen a dosimeter - that is the cigar-like contraption - before you showed it to him today. Does he still adhere to that?

MR McCLELLAN: Is that right? You had not seen one of those before I showed it to you today?---No, I had not.

But you had seen - - -?---Something similar.

Something similar to that?---Yes.

In what way different is your recollection of what you saw?
---It just seems to be a card with a black centre.

A card with a black centre?---Yes, off colour - a black centre.

Do you recall when you were issued with that card - what stage of the operation?---No, I cannot.

What did you do with it when you returned to ground?---That was collected after we went out of the aircraft, if I remember rightly.

Collected by someone on the ground?---Yes.

Your Honour, the commission now has available to it certain records of radiation exposure readings of personnel who were apparently involved in all of the nuclear tests. I should indicate I checked the lists this

morning and it would seem Mr W.A. Turner is not shown on that list at all.

Mr Turner, of course you realise if you had no instrumentation on you during the first flight, then that would not be able to be recorded?---That is right.

You say on 31 October 1953 you returned to Amberley in the same plane. You say you have no recollection of the aircraft being decontaminated prior to leaving Woomera?---No.

Could it have been decontaminated without you knowing?---It could have because we never stayed around the aerodrome section at Woomera any longer than we were required to stay there.

You say, however, shortly after returning to Amberley you recall that it was placed in an off limits area with other Woomera aircraft?---That is correct.

What do you mean by "off limits area"?---The aircraft were parked there. They had big crosses on them and nobody was allowed inside that area.

Were they parked away from the main part of the aerodrome? ---Yes.

How far away from the main part of the aerodrome were they parked?---Where they have the new hangars for some of these new aircraft. That is where it was.

I am afraid very few people here know what that means. Is it half a mile?---No, no.

A hundred yards?---A couple of hundred yards; 200 or 300 yards.

Was the area fenced off?---No, just roped.

Roped? In what way? Was the rope put on poles?---Yes.

On poles, sitting on the tarmac?---Yes.

And there was a rope around them?---Yes.

You say there were crosses. Where were the crosses?---On the fuselage.

Painted onto the plane?---Yes.

In what colour?---Red, I believe.

Was there any other sign put up to identify the aircraft?---I cannot recall if there were any signs there but I do know we were told not to go there.

You were told not to go there?---Yes, it was off limits.

Were you told why it was off limits?---Just that they were hot.

You were told the aircraft were hot?---Yes.

How many aircraft were put on off limits in this area?---I cannot recall exactly but I think I saw four. They were there at odd times. Some were taken away, to where I do not know.

You say:

This was the hottest of all the aircraft.

Do you mean by that the aircraft you flew back from Woomera in?---Yes.

Why do you believe it was the hottest?---By remarks that were made by ground staff and duty officers - mainly where all the engine parts were, where the damage was.

That aircraft, that is the A73-52?---Yes.

Did you ever fly in that aircraft again?---No.

Do you know what happened to that aircraft?---No.

Did it stay in the off limits area for any length of time?
---It was there - I believe it was there up until I went to Malaya.

How long would that have been - a matter of months?---No.
That was about five months or so.

And it was still where it had been parked when you brought it back from Woomera?---So I believe.

Did you ever see anyone working on that craft when it was parked at Amberley?---I had seen ground staff there.

What were they doing to it?---Hosing the aircraft.

With conventional hoses?---Yes.

With high pressure?---No, it just seemed to be conventional hoses.

Were they doing any scrubbing or in any way - - -?---They did not seem to be hosing.

What clothing were they wearing during the course of their washing of the vehicle, hosing of the aircraft?
---A set of overalls.

Any special gloves?---Not that I can - - -

Anything on their faces?---No.

You record on the final page of your statement the nature of directions or otherwise that you were given. You indicate that your directions came from RAAF headquarters?---Yes.

And you pass some comments about your knowledge of radiation now and your knowledge of radiation then?---Yes. You would not get me within 10 miles of it.

Would not get you within 10 miles of it now?---No way.

And tell me this: what is the state of your personal health? Are you a well man?---Reasonably well; I am a diabetic.

You do not complain of any problems in relation to - - -?
---Not that I can say that any are related to radiation or anything like that that I know of.

Yes, thank you, Mr Turner.

THE PRESIDENT: Mr Turner, how old were you at the time?
How old are you now?---I am 61.

When you returned to Woomera after Totem 1 who was in charge of the decontamination process - attending to the clothing and the aircraft and all that sort of thing?---As far as I know the aircraft were attended to by ground staff.

Was there anyone in general control, any scientist, British or Australian, that you could see?---I believe there was a British scientist in control overall, but I do not know - I remember a lecture, but I do not know whether it was before, after, or whether it was later on during the service.

Did you get the impression that there was anything planned about the decontamination procedures or whether it was just a sort of an ad hoc - - -?---Higgledy-piggledy - just ad hoc.

What about the second time, after Totem 2, when you came back to Amberley, was there a scientist in charge then - - -?---The only thing when we came back to Amberley,

I was on leave, and I got a telegram to state I had to go out to medical centre and from there I went back into Ipswich to pathology for a blood sample, but that was the last I ever heard of it.

And finally, I notice at Woomera, you were only given cold showers. Why was that? Was there no facility for hot showers?---No hot water, no hot water there.

Thank you. Mr James?

MR JAMES: Mr Turner, do you recall after the Totem 2 flight, or during the Totem 2 flight, the little clip-on device that you were given?---Yes.

Do you recall that having various colours - green, yellow, and red associated with it?---No, I cannot.

Do you recall a little piece of film inside it?---I think - it seemed to be a piece of film, but it seemed to be black in colour.

Black?---Yes, but I cannot recall for sure.

Do you recall what colour it was when you started wearing it? ---That is the colour, from memory.

So, it was one colour the whole way through?---Yes.

Now, on the first flight, was there a member of the crew named Boville or Broville?---No. He was a navigator that I did know.

Was he amongst the persons flying Lincolns on the flights after or at Totem 1?---I do not recall he was there.

Or Totem 2?---No, I do not recall him there at all.

Now, coming to Totem 1, you were flying a Lincoln aircraft and you flew into the cloud itself which you saw was a rusty - dull - chocolate colour?---Not dull - it was a misty type of thing, you know, it was there against everything else. It was clear skies and this was just this, like a light fog, rusty coloured.

And this was when the meter, or the gauge, went, I think you said, haywire?---Yes, well, first of all it started to rise and when we went pas the cloud and came back into it, because we were on headings and we had to stay on headings and we had to stay on these headings until such time as the cloud came to us.

Where did the headings come from? Had they been given to you on the ground?---They had been predetermined.

So, they were on the ground before you got in the aircraft.
Now, was there any change made to your navigational instructions or heading instructions whilst you were in the air?---Only when you went into the cloud you were to take various headings and strengths.

Now do you recall in terms of those various headings whether what you are required to do was to section the cloud - that is to cut it up into pieces?---What we understood was to find out the size of it and the strength.

Height, as well?---Height was around 7000 or 8000 feet, if I remember rightly. It was not - - -

Did you proceed at a constant height or did you change height?
---I think we changed height when we came back to it.

You went into the cloud?---Yes.

Out of the cloud; and back into the cloud?---Yes.

Was there change in that reading on the Geiger counter you were monitoring when you left the cloud?---Not very much.

When you finally left the cloud in Totem 1, was there much change on that meter reading?---Yes. It finally went back to X - on to the X readings.

Did any dust appear to enter the aircraft?---No - like, I could not tell.

Could not tell one way or the other?---No.

Now, did you, when you were flying in Totem 1, see or hear any report of the flash or the fire-ball of the explosion?---No, not until after Totem 2, and then we were talking to the two pilots that went through the actual explosion - after the explosion.

I am trying to deal with what you were asked about timing, that is to say, see if we can work out what time your flight was through the cloud in relation to the explosion itself?---Yes, well, I think what we can recall of it was that they did not know the exact time it would arrive in a given area, and we were sent out and of course that is why we had such a long - - -

You were patrolling an area approximately 800 miles from ground zero?---I believe so.

In what direction?---North-south.

Sorry?---North-south.

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W.A. TURNER

So along an axis?---Yes, along an axis, approximately 100 miles.

THE PRESIDENT: In each one?

MR JAMES: In Totem 1.

And were you crossing ground zero?---No.

What direction did your north-south axis flight have in relation to ground zero?---Parallel.

And what distance away?---Approximately 800, I believe.

Right, so you were moving in a straight path, backwards and forwards, 800 miles away from ground zero, and that 800 miles, if one was to take the line from ground zero and right-angles to your path - - -?
---Well, there is ground zero, and we were flying up and down there.

Right, is that connecting the two north, east, west, or what?
---West of the - east of the ground zero.

Right. Were you aware of what the wind direction was?
---I was not personally, no. The navigator would have had all that.

Who was the navigator? You have shown the first navigator as Pilot Officer Cheney?---That is the second pilot, is he not?

Sergeant Richardson, navigator - sorry, captain; Flight Lieutenant Onions - second pilot Sergeant Richardson, navigator, Sergeant Cryx?---That is right.

Pilot Officer Chaney, first signaller?---Bomber.

So it would have been Sergeant Cryx as the navigator/bomb-aimer?
---As the navigator.

The man that kept the records?---He would have kept the record of the headings, and time-on headings, as applying to his job.

You had no special protective clothing in the aircraft on the crew?---No.

This Geiger counter that was taking of these readings, was its aerial outside the aircraft?---No; flying behind the step, next to the aircraft skin.

And how close to you was the aerial?---Two and a half feet.

You were not wearing your oxygen mask, you tell us?---No.

Did you receive at any stage any instructions about aborting the mission if some unforeseen consequence should arise?---No.

Were there any instructions of any kind in relation to the mission given to you in the air until that time after you had had lunch when you were told not to eat or drink?---No, no other instructions.

The food that you were supplied with on that mission, was that grease-proof paper wrapped sandwiches?---Yes.

The drink, how was that supplied?---I think it was in - I think we had the containers - - -

What, little sealed bottles?---No; like food container - drink - like a thermos flask, big thermos flask.

And was the drink poured out into cups and passed around?---Yes.

Do you know who it was that sent you that wireless message?
---I would not know.

Do you know whereabouts it came from?---From Woomera.

One of the regular operators?---I should imagine so.

When you removed your clothing, you told us of one pile of contaminated clothing?---Yes.

And you remember the shoes; do you remember if there was any other clothing in that pile, whether it came from your plane or not?---There was other clothing there, yes.

Do you recall what sort of clothing it was?---Mixture; a mixture of clothing.

Any under-clothing?---Not that I recall, no; more outer-clothing than anything else.

Pants, shirts, boots?---Pants, shirts, boots.

Socks?---I think, if I remember rightly, I heard somebody talking about he was coming back bare-footed.

What about flight helmets, flying suits, that sort of thing?
---No.

You believe that all that contaminated clothing was taken out and buried?---I believe so. This is what we understood.

On what did you base that belief?---Only what was said around the place; it was all being buried.

The clothing that you yourselves removed for showering purposes, did you resume that clothing after the shower?
---That is right.

And whereabouts did you go for your showers?---In the hangar itself; there was shower recesses there.

Is that normally the case?---Some of the hangars, yes; there are these facilities for the ground staff.

And I take it the water proceeded through the usual plumbing?
---Yes.

Were you supplied with soap?---I think so, but - it was too cold to worry about it.

This scientist in the laboratory with the atomic oven?---Yes.

Do you recall his name?---No.

Had you met him previously?---Yes.

And did you meet him again subsequently?---No, I did not.

Had you met him on a number of occasions previously?---Only in passing around through the building.

Were you aware of the nature of his duties?---Not all his duties, no; only that he was in charge of that section there, the oven.

What caused you to go to the scientist's room?---Curiosity.

And three of you - I think you had had a beer with him or something, had you not?---A meal?

Had you had a drink with him at some stage in the sergeants mess?---No. I think he is officers mess.

In the officers mess; so you went there for curiosity and you were there when this canister came past?---That is right.

Did anybody explain to you the workings of the atomic oven?
---No. He only explained it in the early stages when we first went in there, what it was and how it worked; if you put anything that was radioactive in it, the counter started going faster.

How did he describe anything that was radioactive? Did he call it hot?---It was hot, but I mean, we did not realise what hot/hot was.

These people that were coming by with the canister on the end of a rod, did they have any covering over their heads and faces?---No.

In Totem 2, you did not see the cloud, I think?---No.

What was it let you know you were in the cloud?---Only the crew members.

That is the crew members in your aircraft?---Yes.

And that, because of the monitoring device?---Yes.

You were the radio operator?---In the second one, yes.

Who was doing the monitoring for that operation?---Lance Edwards.

Was there any discussion in the aircraft about the height of the readings that were obtained on that second flight, compared to your needle going off the dial on the first flight?---No, except that they had gone off the dial again, that is all.

So it went off the dial on the second flight also?---Yes.

Did it appear to be the same monitoring device?---Yes.

Had you been given by this stage any instructions in relation to what to do if the needle went off the face?---No.

Similarly, on this occasion did you section the cloud?---Yes.

Did you change height at all?---Not that I remember.

It was not a case, was it, on the two occasions that you followed the cloud in any direction?---No. Well, all you did was just headings, headings, headings. You know, you were backwards and forwards.

Quartering?---Quartering all the time, yes.

Was it in a grid pattern?---Well, it was up to the navigator really what type of pattern he did.

When the aircraft was hosed off, you have described the occasion when it was in the park; where did the water go?---On the ground, down any drains that were there.

This is at Woomera?---At Woomera, they had them out on the grass.

Were they hosed at Woomera?---I do not know.

At Amberley it just went down the drains?---Yes, just anywhere on the grass, off the asphalt.

The crosses that were on the aircraft, were they in any particular pattern or colour?---I think they were red, but they were just one big cross - I noticed on one side because I could not be bothered going around the other side to have a look at that even.

And were there any personal possessions stored on the aircraft?
---No; not normally, no.

Not normally, no but would the flight crew take them sometimes with them, little bits and pieces of their own?---Watches, that is all.

You would wear those, but other than that people did not store stuff on the aircraft?---No, not normally, no.

Were there any notices up in the vicinity of these aircraft, either when they were at Woomera or Amberley, as some guide to people that they were off limits?---Only at Amberley.

And the one at Amberley was a notice that said what?---Just stop, yes.

What did it say?---Just a warning I think; I think they did put up something about radioactivity, but I would not say for sure.

Do you know who it was that flew A73-52 back to Amberley?---I am not sure. I might be able to pick it up here.

Perhaps this may jog your memory: was it a Flight Lieutenant Werne?
---Either Werne or Goldner.

With a full crew?---With the old crew.

That is the crew less you?---Now wait on; no, with Maurie Onions because Group Captain Cahoun brought 52 back.

So that we know of Group Captain Cahoun; we know of Flight
Lieutenant Werne or Flight Lieutenant - - -Goldner.

Goldner?---Yes.

And we know of Flight Lieutenant Onions?---Yes. They were the
skippers.

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(Continued on page 307)

W.A. TURNER

After Totem 1, you have described to us that the showering procedure appeared to be higgledy-piggledy. What was the rank of the person who appeared to be in charge of that procedure?---Oh - - -

Did it appear to be somebody with any rank?---No, no - it is just that we were all brought in there; righto, you have got to do this, over you with the thing, and strip off.

Right. After Totem 2, did something similar happen?---Very similiar, but there was a little bit more organisation; but still - - -

Did you shower in the hangars?---Same place, yes.

And similarly, a person with a Geiger counter going over you? ---Yes.

And how many times did you shower on that occasion?---Once.

What about any of the others, in the crew?---Once. It seemed to be that you just went through once, and that was it.

On either of these two occasions, did you see anybody making notes on the readings that were obtained on the Geiger counter, as you were being decontaminated?---No. They were just looking at it as they were doing it.

You know that - you have mentioned a little, flat badge?---Yes.

Can you recall what happened to these little flat badges? Can you recall if anybody took them from you?---Well, anywhere at all - it would have been in the hangar there.

Do you recall anybody keeping them as souvenirs?---No.

Yes. I have nothing further.

THE PRESIDENT: Mr Turner, you embarked on these two ventures, Totem 1 and Totem 2, without any idea of their purposes? ---No. I arrived at Amberley on the Wednesday, and on Thursday afternoon I was told I was going on Friday over to Woomera, and that was all we were told.

Did you know that the tests were going on there?---No - did not know until we got there.

You had not heard of it; you were not given any lectures, or any hand-outs, printed material?---No.

Well, do you know whether on the occasions to which you have referred, Totem 1 and Totem 2, any other planes were involved in similar missions to yours?---Yes. There were several planes over there, but I have got a lift in my statement there of the ones that I flew in, that

were there. But there were several others.

Right. Mr Eames?

MR EAMES: Thank you, your Honour.

Mr Turner, in your statement on the first page you have said that between 28 September 1953 and 14 October 1953, we flew aircraft A53/72 with Flight Lieutenant Onions doing various local flights, such as exercise control and background sorties?---That is right.

Could you tell us what the difference was between those two? What was "exercise control"?---Exercise patrol is briefed; it was on three occasions. Background sortie, that was collecting the radiation level in an area - whether it was the same. It was not the same area as we flew in, as far as I can make out; it was just an area to fly in and get the - I think they were checking on the - - -

This is just what the natural background was?---The natural background, yes. Then there were navigational exercises.

And on the occasion that you went through and took the background radiation, were those background radiation levels also recorded somewhere?---Yes. I believe so, but I mean - they were recorded on a piece of paper, as before. But very seldom did - they did not get off X10 - X1, I mean.

And would they have been - that piece of paper, would that have been handed back to someone in charge at Amberley? ---Yes, back in the crew room.

At Amberley, was it, or - - -?---No, at Woomera.

Now, you have said that there were three that you have described as exercise control. Were each of those occasions where you were checking background radiation, or was that only one occasion?---No. Exercise patrol - I forget what they were, but they were not very long. One was only an hour 50 - yes, an hour 50. Another one was 4½ hours and the other one was 3 hours 10; so they were just local flights.

Do you say that should read exercise patrol rather than control? ---Yes, patrol, yes - p-a-t-r-o-l.

So, you flew two exercise patrols?---Three of those.

I am sorry, three altogether?---Three of those.

Is that - just so that I am quite clear, are you saying that the radiation background estimate that you made, was that one of the three exercise patrols that you have described?---No, only one that we did on a background

sortie, and that was the fourth trip.

So that is specifically described by you as a background sortie?
---That is right.

And of the three exercise patrols, you say that they were relatively short, were they?---Oh, well, just a trip, you know: just a navigational exercise, as far as I knew, or what was going on. I do not know what it was actually on, because all I have got down here is "as briefed".

Yes. Before each of those flights, would the crew be called together by the captain and briefed as to the purpose of the exercise?---We would all be briefed in the crew room.

You were briefed together, were you?---Yes.

And, are you saying that you cannot now recall what the nature of the briefing was on those occasions?---No.

Can you just tell us how long those three flights were individually?---The first one, 3 hours 10; the second one an hour 50; and the third one, it was in an A73/56, 30 minutes daylight and four hours of the night time.

And give us an approximate idea of how long would it take the planes that you were in on those occasions to get from Woomera base - from the Woomera air strip - to, say, Emu?---Well, I do not know exactly where Emu was.

Well, do you know Maralinga?---I know where Maralinga is now, yes. I have been there once.

Well, that is quite all right. Well, from Woomera to Maralinga approximately, how long would it have taken?---Two hours at the most.

Yes. Does it follow then for each of those exercise patrols you would have been unlikely to have flown as far as, for example, Maralinga?---No. We would not have gone to Maralinga.

And certainly you would not have been likely to have flown any further west than Maralinga?---No, no.

Nor would you have been likely to have flown to the northern area where the Aboriginal settlements were?---Well, I do not know where they are.

Perhaps - - -?---No, this is it. I do not know exactly just what areas we were flying over because it did not actually concern a wireless operator.

From where you were sitting in the plane, I take it you had no opportunity to make visual observations out the windows, did you?---No.

Yes. Did you on any of those occasions, between 28 September 1953 and 14 October 1953 - do you recall on any of those occasions that you were flying to do a patrol to look for Aboriginal people, or other people on the range area?---No, we were not.

In fact, you were quite positive - - -?---We were too high to do that - anything like that.

And how many planes were based at Woomera this time - say, between 28 September and 14 October 1953?---Now, you have got me. I would say there would be around - at least eight Lincolns, and as many Dakotas.

This plane, A73, was sort of plane was that?---That is a Lincoln - four engined bomber.

Were the Lincolns or the Dakotas, either of them or one or the other of them, better equipped to act as spotter planes if one were looking for, for example, people on the ground?---Dakotas.

And how many Dakotas were there, there?---I think around 8-10
- - -

Yes?---But they were - whenever you spoke to them, the pilots or the crew, you could not get anything out of them because I believe - we believe they were supplying - taking supplies out to Maralinga and wherever.

Well, was there, when the daily briefing sessions were on, would the Dakota operators take part in the daily briefing?
---No. They are briefed separately.

MR McINTYRE: I have just been passed documents which might be useful to my learned friend. It is entitled the details of RAAF participation on the British Atomic Tests. It covers Totem. It lists a number of Lincoln aircraft and some Dakotas.

MR EAMES: I am overwhelmed by the largess of the commonwealth.

MR McINTYRE: It gives full flight crews, full service history of the aircraft and tasks. It is now unclassified.

THE PRESIDENT: Are you in possession of these documents?
Have you seen it?

MR EAMES: Not that I am conscious of it, your Honour, no.

MR McINTYRE: It has just arrived, your Honour. It was classified, and it has now been declassified. It might be of assistance to my friend. I have just opened the relevant page for him.

MR EAMES: We can safely assume it is not an orphan either, your Honour. There would be other documents.

MR McINTYRE: I show my friend page All, heading For Dakota Aircraft.

MR EAMES: Thank you. Would your Honour pardon me for one second.

Perhaps I should ask you first, Mr Turner, in the whole of the time you were based there at Woomera or for that matter flying into this area from Amberley, are you aware of any flight conducted by anyone for the specific purpose of doing a search of the ground to see whether there were Aborigines or anyone else in the test area?---No.

Do you believe that if there had been flights of that description that members of crews such as yourself would have been aware of it?---No, not necessary because as I said Lincolns are not really ground-search aircraft.

Yes?---The Dakotas can be because they have got the big door they can take off.

Yes. I am just looking at this document here. Would your Honour excuse me a second.

THE PRESIDENT: Could you tell us this, Mr Turner, if such searches were being conducted - - -?---Pardon?

If such searches were being conducted to discover whether there were any people on the ground in the vicinity where it was desired that there should not be people would either a Lincoln or a Dakota have been the correct aircraft to undertake such a task?---A Dakota more than a Lincoln because of its slower flying speed and its better manoeuvrability at low heights.

But would it be the type of aircraft that would normally be allocated to such a task?---At that time, yes.

MR EAMES: Were you given any training in any event during the time that you were flying in these areas to train you specifically to spot people on the ground?---No.

Were you ever given any instructions to look for fires on the horizon at the time you were flying there?---No.

When I say you I understand that you did not have a window, but I am asking whether your crew - do you understand?---No.

And so far as you are concerned for the whole of the time that you were there whatever else you were doing you and your crew and similar crews in similar planes to yourself were not involved with anything to do with Aborigines?---No, that is correct.

In fact, anyone on the ground?---No, nothing to do with it.

And if it was suggested in official documents that before the tests there were air searches or indeed constant air searches to ensure that people and particularly Aboriginal people were not on the test sites you would not know anything about it?---No.

Now, if I can take you to Totem 1: are you able to say, and if not just tell us: at what heights your plane was flying in the area on the flight that day?---Around 7000, 8000 feet.

Yes?---That is - - -

Did you ever get down to flying at 150 metres?---No.

Were you aware of any planes during the time of Totem 1 flying at 150 metres?---No.

Were there any other planes - I am reading from page 47 of Air Act 1, your Honour, paragraph 14.12.

Were there any other planes flying through the cloud or near the cloud of Totem 1 apart from your own that you are aware of?---The only aircraft I ever knew about was a Canberra that went through just after the explosion.

We have a statement here from an Alan McEwen who was a flight sergeant on, I think, a Lincoln that was flying on 15 October 1953. Do you recall him at all?---I know Alan, yes.

Do you recall that Lincoln flying in the area at that time?---A 70 - - -

He does not give us a number I am afraid - oh yes, he does, A7353? ---No, I do not remember.

In any event, at the time that you were there, you were at the very least thousands of feet up?---Yes.

I think you said 7000 feet?---About 7000, yes.

And during - I might have misunderstood your evidence - but I thought, I understood you to say you were 800 miles from - - -?---This is a figure I remember - 800 miles.

From ground zero?---From ground zero. Now if that is right I do not know, but I know we were - several planes doing these runs backwards and forwards in a set area.

Yes. Perhaps if you would just look at the map behind you there, Mr Turner. You can see some purple in the centre of the map. The bottom edge of the purple - if you come down towards the south. You may be able to pick Emu up and Maralinga. See if you can find Maralinga there? ---We were up somewhere in this area, I believe. I

believe we were flying in this area somewhere, but
do not - - -

I appreciate your qualifications, but just looking at the map
can you pick out a landmark so we can note it on the
transcript?---No, well, I would not know any land much
because I was not looking out. I would not know where
they observed from.

All right. Perhaps Mr Atkinson - - -

THE SECRETARY: Leigh Creek would be about 800 miles.

MR EAMES: Thank you, Mr Atkinson. Perhaps if you could
point to Leigh Creek to give Mr Turner an idea of
the distance?---I believe we were up in this area
on the north, towards the north-east.

Now, again you may not be able to answer this: because of
the plane that you were flying in, were you ever in
a position to make ground observations of cattle
stations in the area?---No, not on any of the trips
we made.

And I think you said the person who would probably know a lot
more about this would be your navigator?---The
navigator or pilot.

And are they both still alive and in Australia?---No, Flight
Lieutenant Onions is dead. I do not know about
the navigator or bomb-aimer or the second pilot.

Could I take you to Totem 2, and your flight then was I think
you said on the 3rd, was it?---27th of the 10th.

27 October 1953?---Yes.

Was the height that you flew on that day approximately the
same as on Totem 1?---Approximately the same, yes.

Did you on any occasion get down to 150 metres?---Only when
we were landing and taking off.

Yes, quite. Was what you were doing for Totem 2 essentially
that is your crew, essentially identical for what
you did for Totem 1?---Yes, the only thing was
I was on the wireless-set, the hand-set which was
on the box.

By being on the wireless on that occasion were you under
ground instructions?---Only that you had to report.
You had a schedule to keep, that is all.

So you had to say where you were at various points?---At
various times, yes.

Yes?---And also that you reported time into cloud and time out.

Yes. I have no further questions.

THE PRESIDENT: Mr McIntyre?

MR McINTYRE: What was the size of the crew in the Lincoln you were flying?---Six.

There was a pilot and co-pilot?---Yes.

Two navigators?---A navigator, bomb-aimer and two wireless operators.

You were flying, I think you said, aircraft number 52?
---Yes, 52, yes.

Were you one of six people?---Yes.

Or were you the seventh person in the aircraft?---No, I was
the sixth - one of the six.

Your captain - the pilot was Flight Lieutenant Onions?
---Yes, that is right.

The co-pilot was Flight Sergeant Green?---Chaney - Pilot
Officer Chaney.

Pilot Officer Chaney?---Yes.

And Sergeant Crix who was - - -?---The navigator.

The navigator?---Wait on. The second pilot was Sergeant
Richardson.

What was Sergeant Cryx?---Sergeant Cryx, navigator.

Was there a Flight Sergeant Chaney?---Pilot Officer Chaney
was a bomb-aimer.

And Flight Sergeant Edwards?---He was a signalman.

What about the other Sergeant McConnell - not there?---No.

Did you take his place?---I must have, because, as I said,
I came to Amberley on the Wednesday. They said
they were going to Woomera on the Thursday when
I returned to the squadron.

Right?---And in the afternoon the CO said, "You are going
to Woomera tomorrow," so I had to get a quick
job around the aerodrome getting myself checked in.

Had the others been warned before you had been?---Yes.

Was it your recollection that Flight Sergeant McConnell was
due to go and did not go?---No, I do not recall.

What was your rank then?---Officer.

When you got to Woomera, were you given any kind of briefing
as to the nature of the tasks you were to perform
there?---Not straightaway. We were given a
briefing but there were tests being done, and that
was it.

When were you told first that your job was to participate
in the tracking of cloud?---Yes, later on - our
first briefing we ever had.

At Woomera?---Yes, at Woomera.

Was it the case there were about six Lincolns that flew down from Amberley to Woomera?---About six. I am not sure. Six or eight.

Was the briefing you just mentioned, a briefing of those six aircraft, all together?---I believe so. It is a long time ago. The memory is not what it used to be.

On the day Totem 1 exploded, 15 October, prior to your flying out at about mid-day, were all six Lincolns crews briefed together or were you briefed separately?---No, all together.

You were each aware of what the other aircraft was doing? ---Yes, because we were flying set headings, set heights, for a set distance.

And when you took off you knew the task of all the aircraft? You believed the task of all the aircraft was to monitor the path of cloud?---Yes, because we were flying at varying heights and overlapping our control area.

You said after you came out of the cloud the radiation measurement machine that you had went back to the X reading?---Yes.

That is back to the first reading?---Not immediately, but gradually. As you got further away from the area, it went down.

At the time that you landed it was down to the bottom reading? ---The normal.

It was at the bottom scale?---Bottom scale.

Was it making any readings on the bottom scale?---Just flicking up and down, like a background sortie.

Did it ever flick down to register nothing and then flick back up again?---Not right up, no, you know, just tick-tock.

Did it ever register nothing and then flick up to something and then flick back again?---Just a - no, just not far up. Just like we were doing a background sortie, background measurements.

Now, when were those done - before Totem?---Yes, before Totem.

Did you ever see anybody using a similar machine to monitor inside the aircraft after you got back after Totem 1? ---No.

Or Totem 2?---No.

You mentioned the flying suit you wore. Did that have any kind of elastic or lace-up effect on the wrists?---If I remember right, just the loose clip.

But it was designed to clip up and - - -?---Not tight.

But it was tighter than the rest of the arm of the flying suit, was it not?---No, just like a shirt sleeve.

What about your legs? Did they go inside the flying boots?
---No.

I am sorry, did the legs of the flying suit go inside?---They could, yes, but we very seldom wore flying boots because they were too hot.

You mentioned passing around some drinks. Did you pass the cup from person to person or did you - - -?---No, separate cups.

Separate cups?---Paper cups.

On Totem 1 whereabouts were you seated inside the aircraft?
---I was down half-way down the fuselage.

Where was the nearest person?---Behind the mid upper guns.

Where was the nearest person to you?---The nearest one is - would be the skipper.

Where there any open windows or port-holes or whatever you call them in your area?---No.

Where you aware of any draught through the aircraft?---You are always aware of a draught through the aircraft - a little breezey.

Did the six aircraft take off at the one time?---One after the other.

So when you received this message on the wireless not to eat or drink, all the aircraft were - - -?---All got it, yes.

Do you recall how long after you entered the cloud - I withdraw that. Was it after you entered the cloud that you got this message?---No - after we came out, on our way home.

When you received the film badge, did you ever recall anybody making a note against your name?---No.

Did you sign for it?---I cannot remember.

When you say the aircraft were hosed down at Amberley - - -?
---At Amberley I seen the aircraft being hosed down.

Did you ever see anybody taking any parts out of the machine whilst that hosing was taking place?---No.

Yes, thank you. Perhaps I should formally tender this.

MR McCLELLAN: I wonder if this might be done. I do not know if the commission has this document or not. I certainly have not. It is not a contemporaneous document. It has been put together in recent years. Undoubtedly it has an author and I think, although the commission would certainly like to have the benefit of it, we would like to know who the author was. We would also like to know, politely at this stage, where it has been, and to this point in time, if the commission has not been sent it, why is that so. They are matters we can pursue privately, but I think the author of this document should be identified. It is not a record of the time.

MR McINTYRE: Your Honour, I am instructed that the officer present from the relevant department believes that this file has been sent to the commission. It appears to be annexed to a publication which has a file number which would suggest to me that it is annexed to an airforce document. I will seek out the document to which this is annexed and endeavour to have the whole matter identified.

THE PRESIDENT: Including the name of the author.

MR McINTYRE: Yes, your Honour, but I think it might be a useful document and I will make it available to the commission at this stage.

THE PRESIDENT: All right. Do you want to tender it now?

MR McINTYRE: I am in my friend's hands.

MR McCLELLAN: Perhaps I can take the document, and if we can find the document to which it is an annexure, we will tender the lot together. The reason I believe it is necessary to pursue that matter is that there are various discussions here about levels of contamination of aircraft, without anything in particular, and I am sure the particulars may be in the document to which this is an annexure, and we are grateful for the document at this stage.

MR McINTYRE: I will have some inquiries made and see if we can get that document as soon as possible.

THE PRESIDENT: Very well.

MR McINTYRE: It does contain lists of all the air-force personnel at all nuclear tests, and refers to all the aircraft that were being used.

MR JAMES: Your Honour, this witness is a witness in the interest group I represent. The document may be of some real substance in relation to his evidence. If I could have access to it for a moment only, I will be able to tell whether that is my position.

THE PRESIDENT: This is not a classified document.

MR McINTYRE: It used to be. It is now.

THE PRESIDENT: Before you re-examine, Mr McClellan, Mr James might want to ask a question.

MR JAMES: I may not need to. If I could have a few moments while my friend is re-examining.

THE PRESIDENT: Yes.

MRS FITCH: I would like to ask you about the Geiger counter that was in the aircraft. You have described the box with the dial on it and your statement also says that there was about 1 metre of aerial lying behind?---Yes.

What was at the end of the aerial?---It was in a round casing and one lead coming out one end into to the back of the set. It was just lying in the back behind the set itself.

I am sorry. What was in a round casing - the Geiger counter itself?---I do not know. It seemed to be a plastic container, about 3 inches in diameter.

How long?---About a metre long - just plugged straight into the back of the set.

Thank you.

THE PRESIDENT: Yes.

MR McCLELLAN: Just to pursue that a little further, sir: you say there was a set which had a tube plugged into the back of it?---Yes.

was there anything else extruding from the instrument at all?
---No.

And was the instrument plugged in or connected to anything, or was it totally self-contained?---As far as I know it was self-contained.

Did any part of it extend beyond the skin of the aircraft?---No, definitely not. We were told that it was a similar type used as in hospitals.

Did you assume therefore that it was reading the radiation level inside the aircraft?---I do not know.

You do not know?---No. Going by the reading, I doubt whether it was.

I see. Well, why did you assume that it was not reading the radiation levels inside the aircraft?---Because there is always way that it can get through the cracks and crevices - - -

Getting through the cracks and crevices, did you not think it would be what you were experiencing?---What I was experiencing - the breeze, yes, you could feel the breeze.

No, no, you see, there was nothing that went outside the aircraft from the machine that it had to be measuring - - -?---Inside, but whether it is - I do not know how it works.

You do not know how it works?---I would not have a clue.

All right, we will find out for you. Can you tell me this: you said that the instrument went back to near normal as you were travelling back to the aerodrome. Was that true - I would like you to think very carefully - was that true of both Totem 1 and Totem 2?---Yes.

On every occasion that you flew into a cloud the instrument went back to normal?---More or less back to normal, because you switched the switch around as you were going down.

To bring you up to Amberley again, you told us that the aircraft was washed down and the drain took the material away?
---As far as I know, yes.

Do you know where it took it to?---No.

You do not know whether that drain ever blocked?---No.

Yes, thank you. I do not know whether Mr James has anything arising out of the document. I would doubt that he does.

MR JAMES: I doubt if I do. Can I have just one more moment?

THE PRESIDENT: In the meantime, Mrs Fitch would like to ask another question.

MRS FITCH: Could I ask you this time, Mr Turner, about the atomic oven, and I am particularly interested in the nature of the dials or indicators. Where were they situated in relation to the box?---Well, right across the top. It was just a row of rotating drums.

Were they little electronic tubes with little dots that went around and around?---No, they had figures on them.

Digits on them?---They were all numbered zero to nine, each one.

And there were eight of them?---They just rolled over and as the first one got to ten, so the next one went to ten.

And there were eight altogether?---Yes.

Thank you.

MR JAMES: I have nothing arising out of that document.

THE PRESIDENT: May Mr Turner be excused.

MR McCLELLAN: Yes, thank you, your Honour.

THE PRESIDENT: Thank you, Mr Turner. You are excused from further attendance?---Thank you, your Honour.

THE WITNESS WITHDREW

MR McCLELLAN: I call Mr Wilson.

KEITH KING WILSON, sworn:

MR McCLELLAN: Your full name is Keith King Wilson; is that correct?---That is correct.

You live at 24 Romanella Street, Fig Tree Pocket, Brisbane?
---That is correct.

Could you keep your voice up a little? You joined the RAAF in 1942; trained in Canada; and then flew during the war; and then in 1951 you became a Second Pilot on Lincoln bombers?---That is correct.

Now, the Lincoln bomber we have heard described a little. Would you describe it as a draughty aircraft?---The only time it was not draughty was when it was raining and then it was wet.

THE PRESIDENT: Could it be both wet and draughty?---I suppose so, sir.

MR McCLELLAN: Tell me, did it have windows on it that you could open when in flight?---Yes.

And was it common practice for crew to open them when in flight?
---Low level, yes.

Low level means what - less than - - -?---Depends on the heat of the day. You had no air conditioning or anything like that. The only air conditioning was if you got hot you open a window.

When you say you could open them at low levels, could you open a window up to 10,000 feet?---Easily. You could open it at any height. It only got darn cold if you opened them at high altitudes.

Is it cold in the 7 to 10,000 foot range generally?---Not really.

You say you went to Malaya, and then came back and were based at Amberley, and then you were told you were going to go to Broome to take part in the first British atomic bomb tests on the Monte Bello Islands?---That is correct.

Were you told at the time that you were detached to go to Broome that you were going to take part in the tests?---Yes, we were told we were going over there in connection with the tests.

You were told that, were you, and then you refer to your log book as to when you went, and you tell us of a wind-finding mission which was done during the day, and on page 2 of your statement - do you have a copy, sir?
---Yes.

You and I had a discussion, I think, at lunch-time about the first major paragraph on page 2. You see, you have indicated at the bottom of the page that you had a wind-finding mission and then you show a second flight on that date, which was 30 September 1952?
---That is right, yes.

And you go on to say that you recall that on that occasion the flight was carried out soon after the blast. Now, I think I indicated to you at lunch-time that the blast is recorded as having occurred on 3 October. Are you able to assist us now? Do you believe that that second flight on 30 September was that perhaps another wind-finding mission?---As I said before, I think that must have been another wind-finding mission, but I do not think I would have put the wrong date in my log book.

Sure, so we have the picture that you had two flights on 30 September and probably both were wind-finding missions?---That is correct, yes.

Tell me in rudimentary terms, what do you do to find the wind?
---Shall we say you fly to the area in which you want to find the wind and you carry out a manoeuvre on a device called a wind-finding apparatus which is connected to the dead reckoning computer.

And it tells you where the wind is?---It tells you where it blows from.

It is a mechanical instrument?---Yes.

And in your experience was it a good way of finding the wind? Did it work well?---That depended entirely on the operator.

But if the operator was efficient?---It was effective. It was subject to human error.

You indicate on that day that the plane was fitted with collection pods under the wings?---Yes.

Was that true of the aeroplane when you flew it before the blast?---The pods were fitted before the blast quite naturally, because we were standing by for days waiting for this blast to go off. The exact time the pods were fitted, I do not know.

Do you not recall whether they were perhaps fitted at Amberley?
---No, I do not. The reason for this being they did not affect the performance of the aircraft at all.

How large do you recall them being?---About that big and long.

You are holding your hands apart?---I am sorry, that is the diameter.

The diameter is about two to three feet?---Yes.

And the length is about - - -?---Five feet if I remember rightly.

Can you tell me this: was the canister equipped so that something could be placed inside it and then taken out, or was it a whole unit that was removed from the wing?---I do not remember. I never saw it removed. I only saw casually as I left the aircraft that people were rucking about with it. What they did - we went back to the meatworks - I think I have stated that - and we went back to the meatworks, and we were never with the aircraft immediately after the flight.

Your statement indicates you flew on 5 October a mission of 10.3/4 quarters hours duration, and on that occasion, after the blast, you were ordered to fly at specific altitude in a specified grid pattern in a particular area. Now do you remember which area you were required to fly in?---I do not remember the area exactly, but as we went out to the north, I do remember we were out to the north-west of Broome.

North-west of Broome; you see on your right, there is a map of Australia. I appreciate the scale is probably not the best. Can you see Broome there? You see, with my pen?---Yes.

You believe you were flying - - -?---I was out over the Indian Ocean.

And towards the word ocean or east of that?---Somewhere out towards the word ocean.

Out towards the word ocean on the map; would that be right? ---Yes. As I say, I naturally do not remember the exact courses or anything else like that.

Your log book does not help you to identify?---No.

Do you know now whether or not on that flight you in fact contacted the atomic cloud?---I would be most surprised if I did.

Why is that?---The normal drift of wind across Australia is from north-west to south-east. We were north-west of the explosion and therefore, unless there was a particular wind for that day, I think it would be most unlikely that we contacted it.

Were you ever told whether or not you had contacted the cloud? ---We were never told anything.

Never told anything, I see. And this plane that you were flying in, did it have any special instrumentation on-board to detect radiation so far as you were aware?---That I am not sure of, but I think, and I only think this, that there was a Geiger counter on-board the aircraft and that was monitored by the gunners, I think, or the wireless operators, but there was no importance attached to it.

No importance attached to it; were you told that it was on-board, or did you just learn about it?---Now, it is very, very vague, but I have an idea that we were told that if this thing started to click madly, we were to get out of that area.

To your knowledge did it ever start to click madly?---No. It was not exactly what they said, but - - -

You think it was said more colourfully, was it?---Yes.

I thought that might be the case. You indicate that there was some six planes there. You mean at Broome?
---Yes.

Which all came from Amberley?---That is correct, yes.

They were all Lincolns, were they?---They were all Lincolns.

And were they all sent into the air at about the same time to go looking for this cloud?---I could not answer that question as we were briefed individually. We were all sent off in a hurry; whether they all got into the air or not, I do not know.

You indicate in your statement that after the mission you went straight to de-briefing while the pods were removed by the Australian ground crew?---As far as I know that is correct, yes.

Did you actually see the pods being removed?---No. As I said before, I did not actually see the pods being removed. At the stage I left the aircraft there were people mucking around with the pods.

When you say "mucking around with them," what do you mean?
---Well, they were standing around them and I think they had ladders alongside them.

They were about to get ready to take them off?---To do something.

Did they have any protective clothing on?---No.

How were they dressed?---Most of them were dressed in shorts.

With a shirt?---I very much doubt it. They did not tend to wear them.

A hat?---No.

Shoes?---Yes.

Socks?---Break it down.

You do not recall?---I do not recall that much.

And did you ever see anyone dressed in any special clothing?
---There was some British scientists there had some white suits.

You mean an overall suit?---An overall type of thing, yes.

Long arms, long legs?---I seem to remember they had white gloves as well.

Do you know what those gloves were made of, cotton or synthetic?---Just saw it at a distance.

Did they have anything on their heads, these British scientists? ---I do not remember. They could have or they might not have.

Did you think it was strange that there was British scientists there dressed that way contrasted with the Australian personnel?---Again I gave it no thought at the time; if they wanted to wear overalls - the way I looked at it, if they wanted to wear overalls and things up there in that heat, they were welcome to it.

You indicate you were never given any special instructions about the nature of your mission, nor were you warned of the dangers of any special precautions which you should take?---Never.

What about eating, were you given food to eat during this long flight?---Yes.

What about drinking, were you given something to drink?---We would normally carry coffee.

Carry coffee, would you?---Or the means to make it.

Were you told anything about not eating or drinking while you were on this mission?---No.

What about smoking, did crew smoke in the aircraft?---Officially or unofficially?

Well, you better give it to me unofficially?---Yes, some of them would be smoking in the aircraft, although it was strictly prohibited.

It was not prohibited for any reason related to radiation? ---No, no.

Just in case you blew it up?---That is right.

And was it common practice to smoke on the aircraft?---Yes.

Your log book apparently shows on 8 October you returned to Amberley?---That is right, yes.

And you say the aircraft was then washed down?---That is right.

And you record that some members of the ground crew complained because they had to do it; in other words, complained because they had to wash the aircraft down?---That is right.

Were they complaining for any other reason but for the fact they had been flying for 9 hours and then they had to

wash it down?---Normally - we had been over there for about a week, and normally the first thing you do when you land, when you have been away for a week, is go home to the wife and kids, and they were told, you are not going home; you are going to wash the aircraft down.

Was it normal practice to wash down the aircraft?---No; only on the normal maintenance schedule.

How often would that be? Every how many hours?---About a hundred hourly.

Would there be any necessity to wash a plane down after a flight of 9 hours in the normal course so far as you were aware?---No, none whatsoever.

Had it ever happened before?---Not to my knowledge.

And what were they given to wash the plane down with, do you recall? Hoses?---I do not know. I never saw it done. I only heard the beefing from the ground staff afterwards.

You heard the complaints?---Yes.

You say at the time you were in Broome your rank was Flight Lieutenant?---That is correct.

And you were billeted in the meatworks?---That is right.

They were your quarters for the time you were there?---That is right.

You record an unfortunate incident with a gentleman and electricity. Do you relate that in any way to the events of the tests?---Yes. Well, this gentleman, he had his friend killed in an experiment and he was complaining that his friend was unlucky inasmuch as if he had got a few thousand more volts through him, it would not have killed him, and then he went on to say correct precautions were not being taken, and he then made the remark about something to the effect that we should be taking much more precautions with what we are doing. He related his friend being killed to the lack of precautions, to precautions not being taken there.

And this was a British scientist, was it?---One of the scientific - - -

Do you know his name?---No.

Do you know what role he played in the scientific team?---All I know is he had the room next door to me in the meatworks.

The answer is, you do not know what role he played?---No.

Was he a young fellow or older?---He seemed to be, from what
I can remember, between 30 and 40.

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K.K. WILSON

You also relate an incident with respect to Flight Lieutenant Walter Werne.

THE PRESIDENT: Thank you, Mr McClellan.

THE WITNESS: 30 to 40 - very young, I think.

MR McCLELLAN: Thank you. Flight Lieutenant Walter Werne, you relate an incident with respect to him. I think, sir, that you may have learnt since it is possible that that gentleman may have had some stomach problems?
---Yes.

Unrelated to radiation?---Yes - no, half a moment. What do you mean by that?

Well, you say that he was on milk - perhaps I will ask you: you say he was on milk?---Yes.

Was he on milk before you went to Amberley, do you know?---Not to my knowledge. He was put on milk after he came back from Broome.

Do you know whether or not he suffered from stomach ulcers?
---I would say it would be most unlikely, knowing him - most unlikely.

Do you recall him having been placed on extra milk rations, but you do not know the reason?---Well, he always complained - he always told us he was placed on milk rations because of the explosion on Monte Bello.

Was he always on your aeroplanes during the Monte Bello experience?---No. He was flying on another aeroplane.

On another aeroplane?---Yes. Not on ours at all.

But beyond his telling you that he was put on milk because of Monte Bello, you know of no other explanation for that diet that he was undertaking?---It was fairly well known that that is why he was on milk, because of the - we did not know if it was serious or anything, or if it was - - -

Now, the aeroplane that you brought back from Broome to Amberley, do you know what ultimately happened to it?---No.

Did you fly in it again?---I can only do that by looking at subsequent log books to the one I have got here.

You do not know whether or not you flew in it again?---No.

Does that log book take you through to when you left - - -?---No, this one was destroyed or got mixed up in a fire on a train, of all things, and I was posted to Townsville afterwards and it stops. Some few months straight

after that, 61 was the number. I will have a quick look here - no.

Well, certainly, if that log book goes up to 1960 or 61 - - -?
---No, it does not. It only stops at 52. You should have asked me for subsequent log books. It stops at 52.

Do you have the other log books at home?---Yes, I think so.

Perhaps you could let Mr Ryan let me know. When you go home tonight, you might give him a call so that you can make arrangements, and you might just tell us whether or not you flew that aircraft again?---I will, yes.

Thank you, sir.

THE PRESIDENT: Yes, Mr James.

MR JAMES: Mr Wilson, the route that you flew from Broome to reach the area over which you flew the grid, did that take you into the vicinity of the Monte Bello Islands themselves?---I do not remember.

The route that you flew from your patrol position back to Broome, is that also the route that you now do not remember as to whether it would take you near the islands?---I do not think it would because I crossed the coast at right angles. I can remember that. No, I do not think I did.

Did you see any ships during that patrol?---No.

Or during any of the patrols?---I do not think so.

Did you see nothing but the Indian Ocean?---That is all I can remember. The only other thing - the reason I remember crossing the coast at right angles is because there was a picnic on the beach, from the local orphanage at the time, and we buzzed it.

Right. Is that where you crossed the coast?---Yes.

Was that close into Broome?---Local Broome.

Broome area?---Yes.

In fact, that was something that you had organised, that picnic, I think; was it not?---That is correct, yes.

Now, the aircraft that you flew on those missions was aircraft, firstly, 61. Is that right?---61 was the one we brought back.

The Lincoln was the one you brought back to Amberley from Broome?
---It was 61. 41 was the one we flew on operation Hurricane, and the wind-finding was done in 61. I have another Hurricane flight here in 61.

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J.J. WILSON

So wind-finding in 61; and 41 on the operation?---That is correct, yes.

Do you know who brought 41 back?---No, I do not, and I would not overlook the fact that 41 could be a misprint in my log book.

So it could be 61 consistently throughout?---Well, looking at it here, there were five, six, flights done - one, two, three, four, five of them which were on 61, and I have put 41 down for one flight so - - -

And the next point, was it the same skippers during all journeys on that aircraft?---That is correct, yes.

The aircraft?---Yes.

This is Eric Goldner. When you spoke to this English scientist about safety precautions, you have made mention that he said there should be a lot more safety precautions than there were?---That is all I remember of it.

Did you get any idea about safety precautions to guard against what - the high voltages, the radiation must surface - - -?---As I stated there, he was lamenting the loss of his friend. The thing that stuck in my mind was extra voltage would not have killed him, and linked with that was the precautions that were not being taken there. He mentioned precautions not being taken at Monte Bello.

What precautions did he mention - - -?---He did not.

That were not being taken?---Well, I do not remember. Well, you have got to remember that he was doing a bit of lamenting. He was doing it late at night - - -

And he was doing it with the aid of some lubrication?---Yes. And I was not paying that much attention to it.

Was there anything that he said that indicated some degree of disorganisation as to the precautions he felt should have been taken?---No. He just said that he felt that there should have been more precautions being taken.

I have nothing further.

MR COLLETT: Thank you. Mr Wilson, I take it that you did not see the blast?---No, I did not.

And I take it that you could not have seen it from Broome?
---Well, I did not see it from Broome, so I do not know whether it could have been seen from Broome or not. I could not - I did not see it.

No one had reported to you from Broome that they had seen the cloud from that distance?---No.

So what you know about the time and date of the blast comes from what other people told you?---And the fact that we were waiting to get into the air as soon as it went off. We were told that we were to be put into the air as soon as it went off. We were waiting a couple of days for it on stand-by.

How many wind-finding missions do you think you went on?---Well, I can only go on my log book. My log book only shows one. It shows the five flights, and one of them is specifically saying wind-finding.

Have you got any recollection about the direction of the wind on that mission?---Not after 30 years. When I spoke of wind, I am only speaking of the normal drift of wind that goes across Australia, and the way the weather patterns move.

Do you recall whether that drift varied at different altitudes? ---It normally does, but I do not know whether it did.

Was it part of your job on those wind-finding missions, to test the varying altitudes?---It could have been, yes. I would suspect it was. We would not have done it all at the one altitude.

Was it normally the practice that for those flights you were given written flying instructions?---No. We were just briefed and told what we had to do. We would take down our own notes. The briefing officer would probably have written instructions, but none were ever passed on.

And can you recall the rank or the name of the briefing officer?---No.

Was he someone who was on the flight?---No. He would probably be the CO in charge of the detachment.

That was not the sort of - the instructions were not the sort of things that you noted in your logs?---No. They were - those instructions were specifically applying - to be given to the navigator, actually. We just knew that we were going north-west on to Broome. He would have the actual lats and longs.

Do you recall whether you received any instructions as to what to do if you observed any craft during the course of your flights?---No.

I think you told us that you buzzed a picnic that had been arranged by your people?---Yes.

When you say your group had arranged it - was that someone in the Air Force?---Specifically me.

Was it? So you had some contact with the people in Broome apart from - - -?---I was the amenities officer for the detachment and there was an orphanage there and the lads decided to donate the ice-cream which was coming up from Brisbane on the ration to the orphanage, to give it to the kids and the nuns around the orphanage decided to have a picnic on the beach. The Army supplied trucks and then this thing went off the night, the day this was going to be on, so when we were coming back they were still down on the beach so we knew they would be there, so we buzzed them.

You do not happen to remember the name of the orphanage, do you?---I think it would be the only one in Broome. There would not be too many.

It was a church orphanage?---Yes, run by the Roman Catholic church.

So you had some contact with the nuns?---Yes.

Was there any talk around the town about the bomb before-hand? ---Yes, there was. There was some practical joke played that was in the papers at the time about two nights before it went off someone and half a dozen sticks of gelignite and exploded it off on the beach.

So it is fair to say that everyone knew - - -?---Everyone knew it was on.

Was there any sign of any warnings or suggested precautions? ---No.

Any sign of any official signs or documentations about it? ---No.

In your statement you said that, in the last full paragraph on page 2, you say:

I recall that both flights were carried out in the region between the Monte Bello Islands and the West Australian coastline.

Can you see that at the bottom of page 2 of your statement?---Yes.

Are you there referring to flights which took place on 30 September 1952 and 5 October 1952?---That is correct, yes.

If you have a look at the map of Australia, RC3?---Yes.

Can you see the Monte Bello Islands on that map?---Yes.

If I can just go round to the map. What I meant there, Monte Bello is about here.

Perhaps if you come a reasonable distance further south?

---Yes, they are down here somewhere.

You have got that. Did you actually get down that far on those flights?---No. What I meant was there is Broome there, in here.

But you actually recall seeing the island?---No, did not see the islands until 20 years later.

Can you, from looking at the map, just give some indication of how far south the Monte Bellos are from Broome?

You might find a scale perhaps below the map?

---Monte Bello - there is Broome - that is 5 degrees. They are about 320 nautical miles.

Yes, thank you.

MR McINTYRE: What was the date of the flight that you think possibly might have been in aircraft number 41, but you were not certain. Was that before or after the detonation on 3 October?---That was on 5 October.

How many flights did you actually make after the detonation on 3 October?---Two. The detonation was on the 3rd, is that right?

Yes?---This was on the 5th. I flew 41 on the 5th.

Did you fly on the 3rd?---Yes. We flew on the 3rd.

That was aircraft number 61 definitely?---Yes.

Prior to taking off on the 3rd, did you have a briefing in company with the crews of the other aircraft that took off?---We would have had a main briefing, yes. With that, I am only going on general practice. We would have been briefed collectively and then for our particular flight been briefed individually.

Been briefed collectively by the officer in charge of the detachment?---That is correct.

And briefed individually by the pilot of the aircraft?---No, that would be by the operations officer.

Do you recall on 3rd October that you were given any specific instruction in relation to the fact that you would be actually searching to find the cloud from the explosion?---No. We just knew - we would not have been told of it then. They would assume that if we knew

we were running around the upper atmosphere with pods connected to the wings we would have a pretty fair idea what we were doing. I do not think anyone would bother to sort of tell us.

Had you made a flight prior to the 3rd October when the pods were attached to the wings?---I do not remember that. As I said before I do not remember the exact time the pods were put on.

At what time did your flight commence on 3 October?---Well, unfortunately our log books unlike the signallers do not have the time of take-off.

Do you have any recollection?---Well, if someone can tell me when daylight started over there I can tell you when we took off. The first we did 7 hours night flying, and the second one we did 2 hours night flying.

So on 3 October the flight involved 7 hours night flying?
---Yes.

Did that involve a flight from the 3rd October to the 4th October? Can you tell from your log book? Whereabouts was this radiation measurement metre that you refer to as being inside the aircraft?
---I have an idea it was just inside the back door.

Who was the nearest crew member to it?---There was nothing down there, not in the turret. I am not even sure it was there.

Do you recall who it was that gave instructions to wash the aircraft down when you got back to Broome?
---That is a ground staff matter.

You cannot recall anybody in particular from the group?
---No, I just heard it from the ground staff later, who were complaining bitterly they could not get home.

Yes. I have nothing further.

MR McCLELLAN: I have nothing further, your Honour.

THE PRESIDENT: You are excused, Mr Wilson. Thank you for coming.

THE WITNESS WITHDREW

MR McCLELLAN: Call Mr McEwen.

THE PRESIDENT: Do you tender that document, Mr McClellan, Mr Wilson's statement?

MR McCLELLAN: Yes, I do. I am sorry. RC6.

ALAN MCEWEN, sworn:

MR McCLELLAN: Your full name is Alan McEwen, and you live at 9 Angophera Street, Robertson, Brisbane?---That is correct.

I think you have made two statements, one to an officer of the commission and another to Mr Michael Bigg. Is that correct?---That is correct.

Yes, your Honour, I tender both statements. I trust your Honour and the commission have both. The larger one is an amplification of the other and they can be marked RC27a and 27b so they can stay together.

Mr McEwen, you indicate there that you were a flight sergeant in 1952 and you were stationed at Broome in relation to the first Monte Bello tests. Is that correct? ---That is correct.

You say you arrived in Broome in September 1952 and carried out the Hurricane exercise on 3 October and 5 October when you made two flights. Now I take it then you also have taken that recollection from your log books. Is that correct?---That is correct.

The bomb we know was exploded on 3 October and your plane flew out immediately after the explosion without finding or seeing any of the cloud. Now, when you say you flew out immediately after, how long after did you fly out?---Can I refer to my log book?

Sure?---In actual fact we flew out at 22.25. That is 11.25.

11.25 on 3 October, was it?---That is correct.

11.25 pm on 3 October?---Yes.

And you flew for some - in excess of 10 hours; is that right?
---8½ hours on that particular exercise.

I am sorry, 8½?---That is correct.

And you say you did not find the cloud. How do you know that?
---We do not believe we found the cloud. There was no indication given to us by anyone that we had been through the cloud or anywhere near the cloud.

Did you have any instrumentation on board which might have told you whether or not you had in fact contacted cloud?
---Not to my knowledge.

Did you ever have any Geiger counters?---No.

Have you ever subsequently seen aeroplanes fitted with Geiger counters to tell you whether or not you are in cloud or out of it?---I have seen aircraft fitted with instrumentations to tell us whether we are in the cloud or out of the cloud.

But there was no similar instrumentation on this aeroplane?
---No.

Can you tell us in relation to Monte Bello Islands what general area you were flying in on this trip?
You see there is a map of Australia to your right?
---If I recollect, on that flight and a subsequent flight of over 10 hours, 10½ hours, we were out over the Indian Ocean. We did a dog leg across the Indian Ocean.

Well, the Indian Ocean is very large, is it not?---Straight east of Broome.

You went east of Broome, did you? There is Broome on the map. Monte Bello Islands are down there. Do you see that?
---Yes. We did a triangular dog leg.

Did you fly west from Broome and then south, or north?---We flew west, and I do not know where we went after that, I am sorry.

You do not know how far into the ocean you went?---We must have went a considerable way because 10 hours at 160 knots - that is five times 160, about 900 miles out.

You say you also flew again on 5 October, for a slightly longer time, but again you did not find anything?---No.

You did not have any special clothing?---No.

You had no film badges?---No.

Did you have any dosimeters like this metal object I hold in my hand?---No.

Were you told anything about radiation and the hazards of radiation?---We were given a lecture by Dr Penney prior to that time in October, but there was no mention of the effect of radiation on the human body.

Were you able to eat and drink while on these flights?---That is correct.

What about smoking? Did your crew ever smoke while they were in the air?---Those gunners were tail gunners, did not smoke. They occasionally smoked on the aircraft, yes.

I gather you were not supposed to?---It was against the air force law.

Was it widespread though - that men did smoke?---Depending on your crew. If the captain smoked, the crew smoked. If the captain was a non-smoker, the majority of the crew did not smoke.

What about the scoops, as you call them on the wings? They were attached, I assume, on both flights?---As far as I can remember, yes.

Did you see them being removed from the aeroplane when you came back to the air field?---Not at Broome.

Were they removed at Broome; do you know?---I just cannot remember.

You do not recall?---I do not remember them on the aircraft when we flew back to Amberley.

You were also on Totem 1?---That is correct.

On 15 October, and there you did wind-finding exercises in a Lincoln and you took off at 11 am in the morning on 15 October of that year; is that right?---In actual fact it was 12.20, I am sorry.

12.20? That is in the early afternoon?---That is correct.

12.20 pm?---Yes.

You indicate that you knew you were flying in the mushroom cloud because you could see:

We were flying in a big brown and sandy clouded haze and the monitors registered the radioactivity.

?---That is correct.

What were the monitors?---The monitors were situated on the right hand side of the aircraft, just forward of the rear access door. It would be about 18 inches long, and about 8 inches in depth - in height - and about a foot in depth. They were fixed to the fuselage of the aircraft.

Was it a box, was it?---That is correct.

Did it have anything coming out of it, the box - cords, leads, tubes?---Not that I remember.

Did it make noises or did it just read on the dial?---It just read on the dial. If it made a noise, you would not have heard it for the air flow across the skin of the aircraft.

Did any part of it extend beyond the skin of the aircraft?
---Not to my knowledge.

Was it plugged into anything?---Not to my knowledge.

When you say the monitors registered the radioactivity, do you know what level of radioactivity they measured on that occasion?---No.

You say that every couple of minutes:

We jotted on a chart the radioactivity readings.

?---Yes.

Do you mean by that you personally did that?---That is correct.

Do you recall the level of reading that you jotted at any stage?---Not after all these years, no.

Did the instrument ever get to its maximum?---I cannot remember. I do not think so.

You say, however, when you got out of the cloud the reading did not change?---No. I think I later on stated it changed slightly.

You say there might have been a slight drop?---Yes.

Do you mean by that that the needle was much higher than - - -?
---It was higher than zero, but it was not up as high as what it was when we were flying through the cloud.

But what is higher than it had been before you flew into the cloud?---That is correct. The instrumentation was on zero when we went into the cloud.

Did it remain elevated until you got out of the aircraft back at the air field?---That is correct.

And during Totem 1 did you have any special clothing issued to you?---Only normal flying gear.

Did you have a dosimeter, either of the film badge type or the pen type, issued to you?---No. We had nothing more than we normally flew in.

You came back to Woomera and you say the aircraft fitters removed the scoops, you think. Did you see them removed?---I remember someone removing them. Whether they were aircraft fitters, I am not sure. I am pretty sure the ground staff removed the scoops.

Do you know if they were wearing any special clothing?---Not to my knowledge; otherwise it would be outstanding in your mind because Woomera was reasonably hot at that time of the year, and even though it may have been at night, you would have noticed if they had any extra clothing on other than what they normally wore.

Did you see any British scientists around at that stage?---Yes.

Near the aircraft?---Yes.

Were they wearing any special clothing?---Not to my knowledge, but then again, they could have been dressed in a white coat and I would not know - I would not have taken any notice of them.

Did you ever see anyone wearing a face mask or a protection on their face?---No.

You say a scientist at a laboratory, in your presence, placed the scoops on a bench and tested them for radioactivity, and the monitoring equipment echoed loudly, and the scientist hurriedly left the laboratory, and so did you. Why did the scientist hurriedly leave, and you follow? ---He left hurriedly and we left - we strolled out after him, and caught up to him in the corridor and asked him what was the problem.

Yes?---And he told us it was showing a very high level of radioactivity. In other words, it was hot or dirty, whichever terminology you wish to use.

THE PRESIDENT: And he left hurriedly? He did not tell you to get out of the place?---No. We just sauntered out after this.

MR McCLELLAN: Was he wearing any special clothing?---Not to my knowledge.

Was he going off to tell someone he had an instrument with a high reading?---He stopped in the corridor and spoke to us, and he departed. I do not know where he was going.

Was he still in a hurry after you had spoken to him?---Not particularly.

When you say he left in a hurry, was he just walking quickly, or did he take off and run?---He walked quickly.

This was after he spent time collaborating his instrument and making sure - - -?---No, he just put the counter or measuring device across the container and put the measuring device down, and left. The whole exercise would have only taken a matter of minutes.

And, as he was leaving, did he say anything?---No.

You say that:

The plane we flew
and went on to Amberley - - -

By the way, going back a moment: when you came off the aircraft after this flight through the Totem 1 cloud, were you personally monitored for radiation?
---No.

Were any of the other crew?---I do not know. Our crew were not monitored or decontaminated. We went from there by bus straight back to our billets.

During the time that you were flying through the cloud out, did you eat and drink?---We would have, because we were up over 10 hours.

Were you ever given any instructions about not eating and drinking?---No.

You then went back to Amberley and there you were tested with a Geiger counter?---That is correct.

Your memory, therefore, is, you were tested when you got back to Amberley but you were not tested at Woomera; is that right?---I cannot remember whether we were tested before we left Woomera or not. I do not think we were. We were not tested when we landed. A couple of days later when we departed for Amberley, I do not think we were tested. Again, I think the only time - I am sorry, I have a hazy recollection that we were tested before we departed from Woomera, and I also remember that we were quite annoyed that we got retested on our arrival at Amberley.

Why did that annoy you?---At a tender young age and having two young children and having to spend long and many hours away from home, I wanted to get home.

It did not take very long to test you?---Pardon?

Did it take very long to test you?---No, only a couple of minutes - well, they run the counter over the bodies and apparel.

You say you were told to boil your clothes - that is the clothes you flew back to Amberley in?---That is right.

What happened to the clothes you flew through the cloud in?
---They would have been the same clothes.

Had they been washed by the time you got back to Amberley?---No.

The same clothes. Do you know whether or not you measured or read positive on the Geiger counter when you got back to Amberley?---There was a slight indication that my clothing was radioactive.

You were told that, were you?---I could hear it come across the counter.

You could hear on the counter. Your wife then washed the clothing, you say, with the children's clothing, and did you keep on wearing that flying suit?
---That is correct. I also wore the same mask and flight helmet without any decontamination whatsoever - not even being washed.

You kept on wearing that for some time, did you?---That is correct.

You record in your statement that some time later you were stationed in Singapore, and you were sent a signal requiring you to have a pathology test?---That is correct.

Do you have any reason to believe that was in any way connected with your service on Emu?---Yes.

What is the connection you believe, sir?---I think to check on radioactive malfunction of the body.

Were you told that, or is that just your surmise?---I was asked by a Wing Commander, RAAF doctor, had I been in contact with intense radioactive material, and I said, "Yes;" and he asked me where, and I told him at Woomera.

When did this doctor ask you this?---I was over at Changi having my wrists X-rayed when the signal arrived at Tengah on the other part of Singapore Island. I believe the medical section of the hospital rang from Tengah to Changi and whilst I was over there I had the pathology test completed, but the other crew members who were also at Woomera went over the next day and had their tests done. It is very vivid in my mind, actually.

Did you ever get any result from that test?---No.

And apart from this question from the RAAF doctor, were you ever given any explanation for having that test?
---An RAAF doctor - I was never given any explanation whatsoever.

I think you then record in your statement illnesses that you have suffered, and also you referred to a possible radiation sickness you suffered 18 months ago. I think I asked you at lunch-time whether you have the records from Dr Boyce, but you said, at the moment you have not been able to obtain them?---That is correct.

But you should be able to get them and send copies to the commission and you will do so?---Yes. Actually, I saw a specialist soon afterwards.

You saw a specialist as well, did you? I suppose Dr Boyce would have the specialist's comments on your health, too?---That is correct.

Thank you, sir.

MR JAMES: I call, your Honour, for the report that was referred to earlier in the commission today showing the degree of contact of various plane crews with radioactivity.

MR McCLENNAN: I am sorry, I meant to indicate that I looked up Mr McEwen in this document and he is not mentioned there at all.

MR JAMES: That actually is not the report I am referring to. I am referring to the one the Commonwealth so kindly volunteered. I now have it.

Mr McEwen, you were Flight Sergeant Allan McEwen, A1755?---That is correct.

You were part of the crew of Lincoln A73-51 at the time of the Monte Bello tests. Is that of some assistance to your memory?---Excuse me - 73-52 it was.

73-52. Do you recall whether - from what record do you get 73-52 rather than 73-51?---One from an official air force photograph.

That is the photograph that you now hold showing Lincoln and a number of members of the crew?---That is correct.

Could you tell me please who those crew members were?---the captain was Flight Lieutenant Winchcombe - - -

Hartley Ronald Winchcombe. There was also a flying officer, Colin Clare?---Flight Lieutenant Clare, I think it was.

Flight Lieutenant Clare. Sergeant William Robert Boville, navigator?---That is correct.

Raymond Turner; Christian John Fisher, and yourself, Alan McEwen? ---And Bill Bare, the second pilot.

How do you spell that, do you know - B-a-r-e - for the purposes of this?---It would not matter.

I think I can reach an agreement that that is the crew that is shown as the crew of 51 in this document. Would it surprise you, Mr McEwen, to learn that that aircraft - I am sorry, were there any precautions whatsoever against radioactivity given to the crew of that aircraft?---There was no precautions taken at either Broome and/or Woomera. We wore the same gear as we would on a normal exercise out of Amberley, or out of any other airstrip - Williamtown, Richmond - we operated on.

At Monte Bello, would it surprise you to learn that that aircraft A73-51, or 52, the aircraft bearing that crew is shown as having contacted the radioactive cloud?---It would very much so surprise me.

You have believed until not, have you not, that you were not exposed to radioactivity at Monte Bello?---That is correct.

Did you fly to Broome in the same aircraft that was used for the flights at the Monte Bello test?---I am sorry, we flew over in A73-51 - Amberley/Broome, 8000 feet, XYZ hours. We used 51 again for a demonstration, public relations. On the 26th, we flew on the background sortie at 25,000 feet. 52 again, on the 29th - 51, I beg your pardon - in a local familiarisation.

I am sorry. You were right. The photograph was taken in front of the wrong aircraft.

You were in 51 the entire time?---In 51 we did a background sortie again on the 2nd. On the 3rd in 51 we did Operation Hurricane. On the 5th, again we did Operation Hurricane, both in 51. As a matter of fact, we flew back from Broome to Amberley in aircraft 51. I am sorry.

Do you recall why the crew was photographed in front of 52 rather than 51?---I did not even realize we did not fly in 52 until you brought it to my attention, even though it is in my log book.

Having brought now to your attention you were in 51 not 52, do you recall anything happening to 52?---No.

Until now you have not heard it suggested that you in fact were in contact with the radioactive cloud in 51?---Quite to the contrary.

What, have you been told by persons that you were in contact with the cloud?---No. On both occasions - on all occasions when we landed back at Broome, there was no panic, no flap.

And you have not been - no panic/no flap ever since?---No. It was just a normal return to base.

You flew on the Totem tests in aircraft number 53; is that correct?---I flew over there with Wing Commander Rose in aircraft 52. My own skipper then took over in aircraft 53. On the 28th we did local and wind finding exercises, and all the way through, till after the operation, we flew in aircraft 53 until 26/10 when we flew in aircraft 47 for a Nav-ex.

Aircraft 53 - I am just trying to find which is the - who was your own skipper?---Squadron Leader Trewen; he returned back to Amberley. His wife was in ill health and Flight Lieutenant Werne who was doing a ferry-flight - - -

Athol Galway Hope Werne, does that ring a bell? Were you yourself an Flight Lieutenant Werne both listed as spares?---No. We flew over as a crew with Squadron Leader Trewen. Flight Lieutenant Werne then took over the crew and we did a patrol exercise with him for wind finding at 12,000 feet on the 15th. On the 22nd we did Operation Totem and on the 26th, all in the same aircraft, we did a Nav-ex.

Have you ever heard of a Brian Stewart McEwan, navigator?
---No.

A 32562 ACDT Brian Stewart McEwan, navigator; do you know of any other McEwan that served with a crew, Flight

Lieutenant Sydney William Trewen, Flight Lieutenant Rees, Flight Lieutenant Yeatman, Sergeant Robert Bruce Gatenby, Charles Samuel John Murray and William Robert Edwardes Hayward; is that your crew?
---I have flown with a number of those people on certain occasions, but that is not the crew that flew at Woomera and I have a photograph of the crew that flew at Woomera.

Do you have that with you now?---That is correct.

Would you produce it, please?

THE PRESIDENT: Is the other McEwan spelt the same way?

MR JAMES: I think it is.

THE WITNESS: M-c-E-w-e-n.

THE PRESIDENT: This one is "e-n",

MR JAMES: Yes, but there is handwriting in relation to the second McEwan.

Might I have access to that photograph? So the crew is Werne, Rogers, Jordan, Partridge, Westel and yourself?
---That is correct. The second pilot is not evident there.

I hesitate to ask for things to be marked, but it may be, in view of the record that we have had access to, important to have that photograph of the personnel available. It has the names of the personnel on the back.

MR McCLELLAN: I am sure Mr James will not lose it.

MR JAMES: In Totem 2, when you returned to the base, you spoke to that scientist. Did he put the scoops on the bench with his bare hands?---Totem 1?

Totem 1 I should say?---I believe so; to my recollection, yes. I was in the laboratory with him, as were most of the other crew members to my recollection.

These aircraft that went through the cloud and kept flying for a long period not realizing their mistake, was that, as far as you knew, because they were relying on their radioactivity monitoring devices to tell them when they were in the cloud?---That is correct. It was a standing joke amongst the air crew that somebody had flown into the cloud, presumably become contaminated and did not realize it, and kept flying west or whatever direction they were originally on. At some subsequent time - in some subsequent time frame, they then elected to do a one eighty and come back in again, but they were many miles away from the cloud by then.

Was it simply a standing joke, or did you have any reason to believe there was a foundation in fact?

---You must remember most of us were young chaps in these days and it was just another adventure to us. Little did we know the consequences, but it become a standing. It was a joke of a serious nature. One had to do something to relieve the tension, especially in a place like Woomera.

You have mentioned in your statement that you had been told the type of reading you should expect and that your job was to determine the size, shape, direction and rate of drift of the cloud. Who told you the type of reading you should expect?
---It would have been the scientist at the briefing exercise.

Firstly, can you remember what type of reading you were told to expect?---It was just a reading on a dial.

Can you remember whether what you experienced was what you expected to experience?---They did not actually go into specifics of reading they anticipated.

You were just told to record wherever the needle went on the dial?---We were told to record where the needle stopped or as it grew higher or started to rotate; we were just told to record it.

When you were checked when leaving for Amberley, the Geiger counter was simply rubbed over or ran over your clothing?---That is correct.

Not your body?---We were fully fitted for flying.

And you boiled your flying suits, or your wife boiled your flying suits with the childrens clothing you have told us. What happened to the balance of your flying kit? Did it eventually go out of service?
---Not till after I did.

So it lasted as long as you did in the Air Force?---That is correct. We were issued different flying gear. We were issued flying gear, but we still kept our own Australian flying gear.

After this incident with the scientist, and indeed this incident - or after your journey to off Monte Bello on Hurricane, were you afforded washing facilities - showering facilities?---It was a set of - it was nothing different from coming back on those operations than doing an ordinary nav ex off Amberley. At Woomera we went straight back to the sleeping accommodation which consisted of homes, where we were sleeping in lounges, dining rooms, bedrooms, etcetera, etcetera, with no specific task in mind whatsoever. We might even have dinner before we went back. I just cannot remember.

Do you know if you were able to have showers - or, you were able to have showers?---Oh, yes.

Do you know if you did?---Well, by looking at my log book, by the time we got back obviously we would have had something to eat in a general mess. Then we would have went back to the sleeping quarters for which we would have had to catch a bus back to. Obviously, before retiring, one would have had a shower. We left the rest to the RAF.

What is an AC D2?---I would not have a clue, I am sorry.

Nothing further.

THE PRESIDENT: Mr Eames?

MR EAMES: Mr McEwan, firstly, with respect to the Monte Bello blast on 3 October, could I just check that when you did fly on that flight on the day of 3 October, I think you have told us that you flew west from the mainland. Is that right?---That is what I believe, yes.

Do you know how far you flew?---All I can remember - we did 10 hours straight over the sea; 10 hours 20, I think it was, straight over the sea. I believe it was a triangle, a dog-leg, straight out from Broome. Whether we went north or south after we reached the extremity of our out-going leg, I do not remember.

But you are quite clear you did not fly over the mainland as part of your flight on that day?---I was most amazed because of extenuating circumstances that we came back over Broome at our ETA - on our estimated time of arrival, bang on. As a matter of fact, we had had a night out at Broome on the night before, and we did not get back until 1 o'clock in the morning and we were flying at 20 past 4. That is what has made it so amazing, and what makes it stick in my mind.

Yes. Can you recall on that occasion which way the wind was blowing?---No.

And, as you have already told us, you did not in fact see the cloud at all on that day?---No.

And the - - -?---The sea was very choppy because they were taking sea drifts all the time.

Yes. And again on 5 October a similar thing: you flew out over the ocean, but again you did not see that cloud? ---That is the one I particularly remember, flying out over the ocean. What we did on 5/10 is very hazy as far as I am concerned. But I am sure - on the 3 of the 10th, but I am sure that on the 5th of the 10th, we did all that over the ocean.

Yes?---So you are saying there is some possibility that on the 3rd of the 10th, that at some point you might have gone over the mainland?---On 7 hours at night time, and it just depends on whether it was cloudy or not. I just cannot remember.

All right. Well, can I take you to Totem 1, the test at Emu on 15 October. You had been on five wind finding exercises from 26 September prior to then - this is from Woomera, is that right?---That is correct.

On any occasion, after arriving at Woomera, were you sent on a flight to look for people in the test areas?---All we did at Woomera was local familiarisation and wind finding tests, 15-20,000 feet. Not to - on no occasion were we sent out to find anybody at ground level. As a matter of fact, Maralinga did not exist in terminology in those days; it was X200. Nobody knew how to get there except the RAF navigators, as far as our squadron was concerned, to my knowledge.

You certainly are not aware of any flights being sent out specifically to look for people on the ground?---Not as far as I am concerned.

Do you think you would have heard about that if they were going on, given that you were all based at Woomera?---Most of the NCO air crews were all billeted in the same houses adjacent to each other. Yes, I believe that if someone had been sent out on something of an air sea rescue, we would have known about it, or a survival exercise.

Do you have any familiarity at all with searching for people on the ground in a desert situation such as that? ---Myself, personally?

Yes?---No. Not in the desert, but I have over the Great Divide, and/or sea.

I was going to ask you if you were aware of what would be the optimum height for a search of that order. You said that, clearly, 10,000 feet is not much good, but what height would you say would be the sort of height planes

would be flying at, if they were conducting a search for people?---Under 1500 feet.

After the Totem 1 test, you were airborne for 10 hours and 20 minutes. From your position in the plane, were you able to see the cloud from Totem 1 during that period?---At one part of the time, yes. I went up to the astrodome, next to the signals department, and had a look while the other signaller was reading the instrumentation. Otherwise, the instrumentation was down inside the fuselage of the aircraft.

You were not in fact in your position as tail gunner - the tail gunner position?---No.

You were in the centre of the plane, I think you have said?
---That is correct.

I take it, equally, you are in no position to make any observations of where you were with respect to the ground: in other words, whether you were passing over cattle stations, or whatever?---No.

Are you aware now where the plane did go, over this 10 hours and 20 minutes?---I am led to believe we came north up around the gulf country.

What, right up to the Northern Territory?---We did 10 hours flying - 10½ hours flying.

Yes. I am not doubting your word, but I am expressing some surprise. Perhaps can I put it another way: do you have any recollection, now or any understanding, of how long you spent in an area, say, of a radius of 100 to 200 miles of X200?---I have always believed it would be up to six hours. When we approached the boffin, or the scientist, he said anything over four hours.

Can I just clarify this, Mr McEwan: when you say that you believe you may have gone up to the gulf country, are you talking there - you can see on the map behind you, up towards the Gulf of Carpentaria in north Queensland?
---That is correct.

Presumably that would take quite a few hours?---It is only three hours from Amberley over to Woomera - - -

Oh, I see?---And we did 10 hours, so at least five hours going north. That would put us, you know - if you look at Woomera over here and Amberley over here, if you take the same distance and go north in less time - in more time - you must be somewhere up near the gulf country.

What we were asking you is, is it your understanding that the cloud from Totem 1 went in that direction, up towards Queensland and the Gulf of Carpentaria, rather than travelling east in a direction north of - over towards

Cairns?---It was always my belief that it went up to the Gulf country. I have read a report that that has supposedly divided itself, and come east; but that is not my recollection at all, nor did I hear it stated at the time.

Yes?---On the occasion on which you did get the opportunity to look at the cloud, could you form any impression of it then as to whether it appeared to be in one cloud, or whether it appeared to be several types of clouds, or what?---At the height we were flying, it just looked one massive cloud; the same as a normal rain cloud.

THE PRESIDENT: How much of this time that you were travelling all this distance was it in daylight?---From 12.20 onwards.

So most of this flight was in daylight. You have 10 hours break?---Six hours and five minutes were daylight, and four hours and 15 minutes were night time.

Well, how much of that time would you have been in a position to observe the cloud?---In excess of four hours. I would say it was more like six.

MR EAMES: What about your own observations? How long did you observe it for?---I only went to the astrodome every so often.

Yes. What minutes would it have been?---Minutes. A couple of minutes at a time. I cannot remember how many times. It is just the rest of the crew were talking about it and being inquisitive one had to go and have a look.

Did you notice anything such as a smell from the cloud while you were flying?---No.

Well, in any event when you saw the cloud, what height were you then flying at?---I have got every other height nominated in my log book but I have not got the height for Totem 1 but I seem to recollect it was about seven to nine thousand feet.

Is it your recollection that when you looked out at the cloud that it was higher than the height at which you were flying?---Certainly.

And did it appear to go right to the ground?---No, it did not.

Could you say approximately how far short of the ground it was? ---It would be pure speculation.

All right, do not speculate. But could you observe from the observations that you made, from the plane, whether there appeared to be any wind blowing across the ground itself?---We were seven to nine thousand feet. You would not be able to tell over the desert or over the countryside whether there was wind drift or not. If there was tremendous wind drift and you could get a bearing on the ground such as an inhabited area, you could get the drift of the aircraft the same as you get the drift over the ocean off the waves.

Yes. Over the period that you observed the cloud, did its colour appear to change at all?---No, not to me it did not.

And was that basically a dark colour?---It was a heavy hazy sandy colour. It was a bit darker than that wall.

You said it was higher than the height you were flying at, could you tell us how wide it was?---I could not tell you that either, because of the inefficiency of the instrumentation.

I was going to come to that in a second, but how much higher than the height at which you were flying did the cloud appear to go?---Again, I could not answer that, obviously.

What was the problem with the instrumentation that you have described as faulty?---The instrumentation never came back to zero because the radiation adhered to the aircraft and nor could we reset it back to zero.

All right. During the time of the flight when you were tracking the cloud did you make any observations or were you aware then of which direction the wind was blowing at the level you were flying?---I was not personally aware, no.

Could I take you to - I am not sure if you were there at Totem 2. Did you mean there for Totem 2 or only Totem 1?---No, I went back to Amberley prior to that. Actually I was having a look at somebody else's log book today. I believe I was at Woomera for Totem 2 but I did not do the exercise.

Yes, thank you.

THE PRESIDENT: Mr McIntyre?

MR MCINTYRE: While you were in contact with the cloud were you flying on one bearing or were you moving in different bearings, and seeing clearly through the cloud?---We were changing course and height constantly. After going through the cloud on one course at one height we then estimated when we were out of the cloud did 180 degrees circuit and went back in at a different height and a different direction.

This went on for several hours?---That is correct.

How long was it after you took off from Woomera before you first saw the cloud and made your first entry into it. Do you have a rough idea?---That is a good question.

Was it a matter of several hours or was it fairly quick?---I estimate it was only a matter of two hours - 2½ to 3 hours.

Do you have a recollection of seeing the cloud for the first time or were you not able to see it - - -?---No, I was watching the instrumentation. It was only after the rest of the crew sighted the cloud at some subsequent time that I went up to have a look at it.

You were out of the cloud then when you saw it from the astrodrone? ---We were in the cloud.

Did you ever have a view of the cloud from the astrodrone or from your rear gunners position at a stage when you fly out of the cloud before flying back into it?---No.

Was it a general haze all around the aircraft?---It was just like going into a fog. You can see the fog on the horizon and when you get into it you still have visibility in front of you.

Was it noticeably different from the air conditions that were applicable when you took off from Woomera?
---Yes.

What were the air conditions like when you took off from Woomera?---From memory they were quite five by five. Visibility and everything else was okay.

Can you recall how much below your aircraft the bottom of the cloud was seen to be?---No. Viewed from the astrodome, from the astrodome - the astrodome is in the centre, or quarter the way down the fuselage, in the centre of the fuselage, looking upwards.

Could you see the cloud from your rear gunners position and do you recall being told to have a cold shower when you got back from Totem 1, or do you recall actually having a cold shower?---My recollection is we were not told anything after we got back from Totem 1.

You mentioned a briefing exercise conducted by scientists when you were asked a question about the radiation measuring instrument inside the aircraft. When was that briefing exercise conducted, do you recall in relation to Totem?
---I am not sure whether it was done prior to the day we took off or on the day we took off. I am not sure.

Do you recall who it was given by?---Not the particular person, no.

Was it given to your air crew or to the crew of all the aircraft taking off?---To my recollection the same briefing was given to all air crew except Wing Commander's A.

You mention a lecture by Dr Penny before the October test, and you said it did not contain anything about the effects of radiation on a human being. What do you recall being the subject of the lecture given by Dr Penny?
---Pure physics.

Did you understand it?---Well, the group captain went to sleep. If it was good enough for him, it was good enough for flight sergeant.

How long prior to Totem 1 was that?---Prior to Hurricane in Monte Bello - - -

I see. Yes, thank you.

THE PRESIDENT: Mr McEwen, when you sighted this cloud how did you know it was a cloud caused by the explosion rather than just an ordinary cloud?---Because of the colour. Perhaps it was speculation in conjunction with the monitoring equipment.

I see. You did not rely just on sight alone. It was a combination of being in the cloud plus what happened to the equipment that convinced you you were in that cloud?---That is correct.

I see. Mr McClellan?

MR McCLELLAN: I have nothing, your Honour. Perhaps the witness might be excused.

THE PRESIDENT: Yes. Thank you, Mr McEwen, you are excused from further attendance.

THE WITNESS WITHDREW

THE PRESIDENT: That is all, is it?

MR McCLELLAN: Today we have done five witnesses, better than estimated. Can I indicate while everyone is here that tomorrow I propose to call five witnesses, Messrs Toon, Edwards, Coolahan, Puxty and Stein. I think everyone has their statements, perhaps if they do not they could let Mr Ryan know - Toon, Edwards, Coolahan, Puxty and Stein. If someone does not have the statements let Mr Ryan know and we will provide them and your Honour 10 o'clock tomorrow.

THE PRESIDENT: Very well. We will adjourn until 10 am tomorrow morning.

AT 5.00 PM THE MATTER WAS ADJOURNED
UNTIL TUESDAY, 9 OCTOBER 1984