

ADVISORY COMMITTEE ON HUMAN RADIATION EXPERIMENTS

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INTERVIEW WITH  
GENERAL E.A. PINSON

BY  
PATRICK FITZGERALD

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AT  
SAN ANTONIO, TEXAS

Reviewed for Accuracy  
by  
Julie Crenshaw

1                   GENERAL PINSON: It also reminded me  
2 many other things that I can't recall, like who  
3 the people involved in this. I have no recolle  
4 of that.

5                   MR. FITZGERALD: Right. Some of  
6 things it's very difficult. There's so  
7 information.

8                   Well, this is, what's today, March  
9 1995. My name is Patrick Fitzgerald. I am here  
10 General E.A. Pinson, Earnst Pinson and his wife,  
11 Pinson.

12                   We are going to talk about some o  
13 research during the 1950s, mostly during the 50  
14 60s.

15                   GENERAL PINSON: During the 1950s,  
16 All this work, I suspect the work that we are goi  
17 talk about most was all in the period from 19  
18 1959. It was at that time that I got out o  
19 nuclear weapons development and test activities

1                   To do that, I became then the Commander of  
2                   the Cambridge Research Laboratories up at Boston,  
3                   Massachusetts. Subsequent to that, the Vice Commander  
4                   and Commander of the Office of Aerospace Research,  
5                   which was one of the Air Force's commands during the  
6                   1960s.

7                   Then my last duty was as Commandant of the  
8                   Air Force Institute of Technology out at Dayton, Ohio.

9                   In those latter three positions, my duties  
10                  were almost totally administrative, over research  
11                  elements, but nonetheless, these elements were so big  
12                  that I had very little to do with the details or the  
13                  activities within them.

14                  MR. FITZGERALD: So you had stopped doing  
15                  the research itself, and started just doing the  
16                  administration?

17                  GENERAL PINSON: Right. My duties during  
18                  the part of the 1950s were administrative, but I was  
19                  still administering elements that I knew mostly what  
20                  was going on within them. I still had sufficient time  
21                  so that I could participate in some of those

1 activities.

2 MR. FITZGERALD: Which was the first test,  
3 nuclear test that you were involved in?

4 GENERAL PINSON: The first test I was  
5 involved in was Ranger.

6 MR. FITZGERALD: Ranger?

7 GENERAL PINSON: Which was the first test  
8 in Nevada. My recollection is that that was in  
9 January, early part of 1951.

10 My responsibilities in that test were in  
11 rad safe.

12 MR. FITZGERALD: Oh. You did rad safety?

13 GENERAL PINSON: Yes. I was in the Rad  
14 Safe Organization at Ranger. We were based at Nellis.  
15 At that time, there had been no construction of  
16 buildings out at the Nevada Test Site, at what later  
17 became Camp Mercury.

18 MR. FITZGERALD: That was the first test.

19 GENERAL PINSON: That was the first test.

20 The tests were all weapons drops from aircraft.

21 My duties were to visit the communities

1 east and northeast of the Nevada Test Site in Nevada  
2 and in Utah, and to advise the people in these  
3 communities of what was taking place in so far as I  
4 knew it, and I could do so.

5 And also to advise them of the fact that  
6 we didn't anticipate there would be any fallout in  
7 these areas, but that we would be driving up and down  
8 the roads and visiting the communities during these  
9 tests, and particularly, after each test, to assure  
10 that there had in fact, been no fallout in those  
11 areas. If by chance there were fallout, they could be  
12 advised of the nature of it and the extent of it.

13 MR. FITZGERALD: What kind of reactions  
14 did you get from the community members when you  
15 visited them?

16 GENERAL PINSON: We didn't get any  
17 negative reaction at all. The reactions were  
18 positive. In fact, I think during that test, I think  
19 there was no fallout in the area, because these were  
20 all airdrops. They were detonated at sufficiently  
21 high altitude so that they didn't touch the ground.

1           Therefore, the large particles didn't get sucked up  
2           into the cloud.    As a consequence of that, the  
3           radioactivity dispersed in the air.

4                       MR. FITZGERALD:   Then the next test was  
5           Greenhouse?

6                       GENERAL PINSON:    The next test was  
7           Greenhouse.   That was also during 1951.   That started  
8           I think in February of 1951 and extended into the mid-  
9           summer.

10                      My involvement in that was, how to put  
11           this.   At Los Alamos, there was a fellow by the name  
12           of Bob Carter.   For reasons that I don't understand,  
13           he was involved in measuring the hazard in the clouds  
14           from these nuclear weapons.

15                      MR. FITZGERALD:   Was he doing this with  
16           drones?

17                      GENERAL PINSON:    Yes.   Why was he doing  
18           this?   I don't know.   I think it was because the  
19           operational air commands of the Air Force had  
20           established what was called an operational  
21           requirement, to know something about the hazards of

1           these clouds at times after detonation.

2                       There had therefore, because it had been  
3           arranged because of this operational requirement, a  
4           plan to fly drones through these clouds, B-17. These  
5           were B-17 drones.

6                       In flying those drones through, there was  
7           also an endeavor to measure with instrumentation, the  
8           radioactive characteristics in the clouds. Also there  
9           was a measurement made to construct in that aircraft,  
10          a compartment in which mice could be placed.

11                      I had been assigned to Los Alamos in  
12          February of 1950. I do recall that at one time during  
13          that first year, I went to Eglin Field in Florida to  
14          inspect the drones and to see what was being done  
15          about providing this mouse, this compartment for the  
16          mice in this aircraft, in this airplane.

17                      Ventilation was to be provided through  
18          that compartment, which would result in a fairly rapid  
19          turnover of air in this mouse compartment.

20                      MR. FITZGERALD:    So there weren't any  
21          filters on the airplane itself, on the air intakes?

1                   GENERAL PINSON:    No.    There were no  
2                   filters on the airplane, and there was no crew in the  
3                   airplane.  There were no filters.

4                   There was a special provided air intake  
5                   for this mouse compartment, so that it would be  
6                   assured that the mice would in fact be exposed as much  
7                   as possible, to just what they would be exposed if  
8                   they were just in the clouds.

9                   MR. FITZGERALD:    So they could breathe  
10                  radioactive particles.

11                  GENERAL PINSON:    So they could breathe  
12                  radioactive particles.  Bob Carter was a medical  
13                  officer at the Los Alamos Scientific Laboratory, who  
14                  worked in the Health Physics Department.  
15                  Specifically, I think in, what was that laboratory  
16                  called that Wright was in charge of?

17                  MR. FITZGERALD:    The Health Physics  
18                  Department.

19                  GENERAL PINSON:    There was a research  
20                  element of that Health Physics Department.  Wright  
21                  Langham was the head of that.  When I went to Los

1 Alamos, I had been assigned to that research element  
2 because of a special problem that they had.

3 I had been assigned to Los Alamos with the  
4 expectation that I would work in the theoretical  
5 physics department. But when I got there, they just  
6 had this accidental exposure of three members of the  
7 laboratory to an unknown quantity of tritium.

8 They not only didn't know how much tritium  
9 these people had taken in, but there was at that time,  
10 no way to measure it.

11 MR. FITZGERALD: Oh. I didn't know that's  
12 what motivated the tritium studies.

13 GENERAL PINSON: I walked in just at the  
14 time that that occurs. If you looked the world over  
15 for a person whose qualifications were such as to work  
16 on that problem, it was I. Because I had not only  
17 been trained in physiology, but I had also just  
18 finished graduate work at the University of California  
19 in Physics.

20 So they asked me if I would forego the  
21 assignment to the Theoretical Physics Department in

1 favor of working on this particular problem. I agreed  
2 to do that.

3 There was another person, Ernie Anderson,  
4 who had a Doctorate Degree in Chemistry. He was  
5 assigned to help me with that. It was he who was  
6 most, not helpful, but he really constructed the  
7 instrumentation that was required to measure this.

8 After a few weeks, why we had the  
9 instrumentation developed. We could measure how much  
10 tritium these three people had had to have in them.

11 During this period when we had no instrumentation, why  
12 we were collecting urine samples every day from these  
13 three people. Collecting it and putting in a  
14 refrigerator so that when we got the instrumentation,  
15 we could measure it. Once in a while, we'd take some  
16 blood samples from them.

17 I remember the names of those three  
18 people. One of them was Harold Agnew. He later  
19 became the Director of the Los Alamos Scientific  
20 Laboratory. And another one's name, whose last name  
21 was Argo. I can't remember what the name of the third

1 person was.

2 MR. FITZGERALD: But these three  
3 individuals aren't the people who ingested the tritium  
4 during the studies? Those were different individuals?

5 GENERAL PINSON: They were involved in the  
6 development. Just at that time that Los Alamos had  
7 gotten the go-ahead on the development of a fusion  
8 weapon, and up to that time, they had worked during  
9 the Manhattan Project, they had been working on a  
10 fission weapon.

11 It was known if you could achieve fusion,  
12 you could get the same sort of energy, even more  
13 energy from a fusion reaction than you could get from  
14 a fission reaction.

15 So the laboratory there had been working  
16 on, I don't know why they were working on tritium,  
17 what they had been doing. But at any rate, in the  
18 process of doing this, these three people had been  
19 exposed accidentally. They didn't know how much  
20 exposure they had had.

21 MR. FITZGERALD: Were, in the studies that

1           you performed, there other individuals who ingested  
2           just small amounts of tritium a baseline or were these  
3           individuals used so you could determine?

4                       GENERAL PINSON: No. Those three people,  
5           of course the information, other than that accidental  
6           exposure, they were never used as subjects in any  
7           other work that I did.

8                       But I did use, of course, the data that we  
9           collected from them as a means of ascertaining what  
10          the rate of excretion of tritium from the body was.

11                      MR. FITZGERALD: Do you remember who the  
12          subjects were? Were they workers?

13                      GENERAL PINSON: You mean the subjects at

14          --  
15                      MR. FITZGERALD: Of the later experiments.

16                      GENERAL PINSON: Later experiments? I  
17          remember there were only three of them. I was a  
18          subject in I think all of these experiments except  
19          three. I could use myself over and over, because the  
20          rate of excretion of tritium from the body, after we  
21          determined what it was, was such that if you were

1 exposed today, then the half-life of that exposure was  
2 normally about 10 or 12 days. It was a function of  
3 how rapidly you ran water through the body. If you  
4 forced fluids, you could reduce that to two or three  
5 days.

6 But in any case, what that means is that  
7 in two or three days, you could reduce the exposure  
8 level to one-half of tritium, from the time you got  
9 it, you could reduce it by one-half. If you kept  
10 forcing fluids, in another two and a half days, it  
11 would be one-fourth. In another two and a half days,  
12 it would be one-eighth, and another two and a half  
13 days, would be one-sixteenth. So you could get this  
14 down in a matter of a month or two, to something like  
15 one or two percent of what it had been.

16 So therefore, if I did an experiment on  
17 myself, then I could go back and repeat some other  
18 experiment in two or three months because my level  
19 would be down to within a percent of zero, of what it  
20 had been before it was done.

21 MR. FITZGERALD: So you subjected yourself

1 to the experiments?

2 GENERAL PINSON: That's right. That's the  
3 way it should be. That's the way I have always done  
4 it, even back at Wright Field, where we were involved  
5 in development of personal equipment and were exposed  
6 at high altitudes. I was involved, not solely, but  
7 with other people in the development of oxygen masks  
8 for people, before World --

9 When I first went to Wright Field in 1939,  
10 the Air Force didn't have any oxygen masks.  
11 Furthermore, they didn't have any planes that flew  
12 much above 20,000 feet, so you didn't need them.

13 But we had planes coming on that were  
14 going to be flying at 30 at 40,000 feet. They needed  
15 the oxygen mask.

16 What they had used up to that time was  
17 just a pipe stem in the mouth, with a tube going to  
18 oxygen. You could breath a little. Very, very  
19 inefficient.

20 But I was involved in the development of  
21 the oxygen masks and ejection seats, G-suits for

1 people. All of these, you know, I was not alone in  
2 these things, but these are things that I was involved  
3 in, in which I was used as a test subject.

4 MR. FITZGERALD: So you have a lot of  
5 experience as a test subject.

6 GENERAL PINSON: But if you are going to  
7 do something like this and you think it's safe to do  
8 it, then you shouldn't ask somebody else to do it.  
9 The way you convince other people that at least you  
10 think it's all right, is do it yourself. So I was  
11 just carrying this to the work that I was doing in Los  
12 Alamos. To the extent that I didn't need other  
13 people, I used myself.

14 Now in addition to that, the most  
15 authoritative person in the world, I think at that  
16 time, on radiation exposure to all different kinds of  
17 radioactive products, was a guy who was Wright  
18 Langham, who was in charge of that research activity  
19 at Los Alamos. So I was doing this under his  
20 direction and advice and consent. So he was also a  
21 subject in some of these experiments.

1                   There's another person that I note from  
2                   the reports that you have sent me here, that I wrote  
3                   when I was at Los Alamos. There was another subject  
4                   whose initials appear to be JS. I don't know who that  
5                   was.

6                   I think it was a medical officer who was  
7                   Wright Langham's assistant, perhaps. But I don't know  
8                   who that was. I don't remember who it was. But that  
9                   person was involved in only one experiment. This was  
10                  after I had experimented, you know, with myself and  
11                  with Wright Langham.

12                  Of course, before we did any of this, why  
13                  we had this exposures to animals, mice and rats, over  
14                  extended periods of time, where the exposures were  
15                  much higher than any that we were exposing ourself to.

16                  The exposures that I did for myself and  
17                  Wright Langham were exceptionally low, because the  
18                  instrumentation that you used is so sensitive, that  
19                  you can find out such things as how fast, how is this  
20                  tritium absorbed. How fast does it absorb through the  
21                  skin? How fast does it absorb through the lungs? You

1 know, if you are exposed to it, how do you get it into  
2 the body? So, with what speed is it absorbed in these  
3 various modes of entry into the body, as well as  
4 knowing at what speed is it excreted.

5 MR. FITZGERALD: Which is the fastest? Is  
6 it the lungs or the skin?

7 GENERAL PINSON: The lungs. But if you  
8 are exposed to an environment of tritium, the tritium  
9 gas, it's almost innocuous because the gas is not  
10 absorbed into the body at any higher degree than any  
11 other inert gas like nitrogen, for example. You don't  
12 have very much nitrogen in the body because it doesn't  
13 bind with anything in the body. Therefore, your  
14 body's association with it is limited to what was the  
15 physical absorption of nitrogen in a fluid, such as  
16 blood.

17 Same thing is true with tritium, until it  
18 converts to tritium oxide. When it converts to  
19 tritium oxide, then it gets distributed in the fluids  
20 in the body and into organic materials.

21 Up to that point, you know, with just

1 tritium gas itself, as soon as the exposure to it has  
2 ended, then it very quickly is exhausted from the  
3 body. So it's really inconsequential.

4           Unfortunately, you know, tritium oxide is  
5 absorbed very rapidly, not only through the skin, but  
6 through the lungs. The extent of that absorption, the  
7 rate of it, if you consider exposure of the man, the  
8 whole man to it, is about equal.

9           In other words, the rate of absorption  
10 through the skin is limited by the diffusion of water  
11 vapor, this is what was subsequently found out. By  
12 the rate of diffusion of water vapor through the skin,  
13 any quantity that you inhale is almost completely  
14 incorporated into the body fluids. It doesn't come  
15 out. In other words, all that you inhale stays there  
16 and is only excreted through the kidneys and through  
17 water excretion. So that the amount that you can  
18 inhale through the lungs of tritium oxide, is  
19 determined by how much air you inhale. All that you  
20 inhale stays there.

21           But the amount of tritium that you absorb

1 through the skin is determined, is a slower, much  
2 slower process. But because the skin is a large area,  
3 then you do get as much through the skin as you do  
4 through the lungs.

5 So the hazard of getting it into the body  
6 is about the same. The problem of getting it out is  
7 also the same, because it incorporates into the body.  
8 Water and then, you know, the half life of its  
9 excretion from the body water is fairly rapid. As I  
10 mentioned earlier, it is normally about 12 days. But  
11 you can reduce it to about two and a half days by  
12 forcing fluids. So if you really got a really high  
13 exposure to tritium, then you can get it out quickly.

14 The further thing, as you know, what  
15 happens to its incorporation into organic constituents  
16 in the body. This we determined primarily with the  
17 mice and the rat experiments, because these were  
18 exposed to very high levels of tritium water in their  
19 system for periods of several weeks and even months.

20 So then after this exposure, why these  
21 animals were sacrificed and the water was separated

1 from the organic constituents. Then you examine the  
2 organic constituents to see how much tritium is in  
3 these constituents. Then you divide it up into  
4 various skin and fat, and kidneys, and thymus, and  
5 lungs, and all the different parts of the body, to see  
6 if there has been in fact, any concentration of  
7 tritium in the organic constituents of any of the body  
8 elements.

9 For example, iodine is a good example of  
10 a radioactive --

11 MR. FITZGERALD: That concentrates in the  
12 thyroid.

13 GENERAL PINSON: That concentrates in the  
14 thyroid. You can take a small amount of iodine and  
15 half of it stays in the thyroid. The other half gets  
16 distributed into the rest of the body.

17 Fortunately, in the case of tritium, there  
18 is no body element in which tritium concentrates. So  
19 therefore, it's not any great hazard because it does  
20 not concentrate. If it concentrated, it would be a  
21 hazard, more of a hazard.

1                   We never, in the case of the mice, you  
2 know, how fast does it grow out of the organic  
3 constituents? Well, it's very slow in going out.  
4 Something of the order of about 7 to 15 days.

5                   MR. FITZGERALD:           These tritium  
6 experiments, you performed them in between the work  
7 that you were doing at bomb tests?

8                   GENERAL PINSON: Right. Right.

9                   MR. FITZGERALD: So after you would do  
10 some work at a bomb test you would go back to Los  
11 Alamos and do work.

12                  GENERAL PINSON: Right, and pursue this.  
13 But you see, I was at Los Alamos approximately a year  
14 before we had the first bomb test.

15                  MR. FITZGERALD: Oh, okay.

16                  GENERAL PINSON: So therefore, this work  
17 that I am describing here was --

18                  MR. FITZGERALD: Around 1950.

19                  GENERAL PINSON: Was 1950.

20                  MR. FITZGERALD: Okay.

21                  GENERAL PINSON: I don't know how far we

1 progressed toward doing this on humans. I can look at  
2 the report. I don't know when we started that, but we  
3 had the accidentally exposed people. We could work on  
4 their urine excretions to find out a lot about how  
5 much the tritium was. We didn't do any biopsies on  
6 them, of course.

7 We did do some biopsies on me, after we  
8 did all this work. I had the people at the hospital  
9 take some skin and fat and separated the water from it  
10 and analyzed the organic constituents, to see if in  
11 fact in the human, the retention of tritium in the  
12 organic constituents of those two body elements, the  
13 skin and the fat, was in fact the same as it had been  
14 in the case of the rats. From that, we would  
15 extrapolate that there is no, so far as we could tell,  
16 is no concentration of tritium in any organ in the  
17 body, in the organic constituents of that organ, which  
18 would make it an inordinate hazard.

19 That work that I did at Los Alamos is  
20 still today the standard by which the exposures to  
21 tritium are estimated and determined. What is in fact

1 a tritium exposure level that is tolerable.

2 MR. FITZGERALD: You got several awards  
3 for that, for your work at Los Alamos.

4 GENERAL PINSON: One of the best things  
5 that I did, which was commendable from a scientific  
6 nature, as well as a practical nature.

7 By and large, scientists are not very  
8 enthusiastic about working on practical problems  
9 because it takes them away from the scientific  
10 advancements that they like. There's a lot more  
11 satisfaction in scientific advancements. There was in  
12 this.

13 As a result of this work, I got invited by  
14 the American Physiological Society to write a review  
15 article. I don't know if that is in this thing or  
16 not.

17 MR. FITZGERALD: I'm sure we have it, but  
18 I didn't send it to you.

19 GENERAL PINSON: I just wondered. I have  
20 a copy of that review article if you don't have it.

21 MR. FITZGERALD: I should check.

1                   GENERAL PINSON: One of the big, I felt  
2 one of the big honors that was bestowed on me. They  
3 invite the person to write those articles that they  
4 think is best qualified in that subject.

5                   MR. FITZGERALD: Great. So after you were  
6 at Ranger and at Greenhouse, then the next test was  
7 Buster Jangle. Were you involved in that test also?

8                   GENERAL PINSON: What year was that?

9                   MR. FITZGERALD: I think that was 1951  
10 also. It was late in 1951.

11                  GENERAL PINSON: No. No. I wasn't  
12 involved in that.

13                  I think my next involvement was in 1953.  
14 I have difficulty remembering.

15                  MR. FITZGERALD: That was Upshot Knothole.

16                  GENERAL PINSON: Upshot Knothole. My  
17 involvement in that was not only as a project, I have  
18 forgotten what the title was.

19                  MR. FITZGERALD: Were you the director of  
20 the Four Point Program? The biomedical?

21                  GENERAL PINSON: I am trying to think of

1 what my position was. I know I was surprised, because  
2 I was a Lieutenant Colonel, and under my supervision  
3 was a Navy Admiral, which was very unusual.

4 MR. FITZGERALD: That is very unusual.

5 GENERAL PINSON: This is an Atomic Energy  
6 Commission activity, to conduct these tests. Admiral  
7 (Baker?) and I got along all right. He was involved  
8 in the exposure of pigs to the thermal energy  
9 involved. You are aware, I'm sure, that the distance,  
10 in the detonation of nuclear weapon the distance that  
11 you are at hazard from thermal radiation is far  
12 greater than anything else. If you are out in the  
13 open and exposed, your hazard is much greater. ~~The~~  
14 next distance is blast and where the lowest building  
15 is. The least distance is radiation. This is from  
16 the initial blast, not subsequent fallout radiation.

17 I can't think of the title that I had  
18 there, but I was administratively responsible in the  
19 test, at least, for I think all of the biomedical work  
20 that was going on. I think from the military services  
21 only though.

1 MR. FITZGERALD: Not from Los Alamos?

2 GENERAL PINSON: I think not from Los  
3 Alamos. I think I was just a part of the military  
4 element.

5 Of course this military element, as you  
6 well know, was under the Armed Forces Special Weapons.  
7 What was the name of that base next to Kirtland,  
8 Sandia base.

9 When you went out to Nevada or went out to  
10 the Pacific, no matter what your assignment was in the  
11 Air Force, you came under the supervision of the  
12 people at that Special Weapons, that was at Sandia  
13 Base.

14 MR. FITZGERALD: Do you remember a thing  
15 called the Biomedical Test Planning and Screening  
16 Committee? Thomas Shipman from Los Alamos was  
17 involved with it. It was supposed to be a committee  
18 that would review all the biomedical programs. It was  
19 working during Upshot Knothole. The thing kind of  
20 fell apart afterwards.

21 It reviewed all the programs to see

1       whether they had been done before, whether they were  
2       plausible experiments, things like that.   Do you  
3       remember that?

4                   GENERAL PINSON:   I don't remember that.

5                   MR. FITZGERALD:   I wasn't sure how big it  
6       was.

7                   GENERAL PINSON:   I don't remember that.  
8       But certainly it was within the earlier tests, like  
9       Ranger and Greenhouse.   The principle direction, I'd  
10      say of the activities, the biomedical activities, much  
11      of it came from Los Alamos, because they had the know-  
12      how.   Even the Rad Safe people came mostly from Los  
13      Alamos during those tests.   They had the experience  
14      that would enable them to do their duties.

15                   But no.   I don't remember that, although  
16      I can well believe that they had a major role in those  
17      early tests.

18                   I guess my involvement I felt in the  
19      Greenhouse test was simply to get these mice aboard  
20      that airplane.   In that test, you know, the Biomedical  
21      group was on Japtan.   The two big islands at the

1 southern end of Enewetok Atoll. Enewetok itself,  
2 where the airstrip is, and Parry, where most of the  
3 industry offices of the task force were.

4 But in Greenhouse alone, I think they also  
5 had the Biomedical Group on Japtan, which was a little  
6 island. It was just north and east of Parry. I was  
7 a part of that group.

8 So I used to, on the night before the  
9 shot, I'd take the mice over on the night, actually  
10 during the night, take the mice over by helicopter to  
11 the airstrip, and put them aboard the B-17 drones.  
12 Then stay there and pick them up, take them back to  
13 Japtan after the shot the next morning.

14 But that was, you know, a pretty menial  
15 job.

16 MR. FITZGERALD: You conducted a similar  
17 experiment at Upshot Knothole, right, with mice and  
18 monkeys?

19 GENERAL PINSON: Yes. This was 1953?

20 MR. FITZGERALD: Yes.

21 GENERAL PINSON: Yes, but I think, I don't

1 really recall what my responsibilities were there. I  
2 don't have a very good recollection of what they were.  
3 I know I was a program director. Program director.  
4 This meant I had administrative responsibilities for  
5 people that were doing other things than my project.

6 My project, I'd say was handled mostly by  
7 subordinate people. I'll try and think who those  
8 subordinate people were. Who was it that went out  
9 there with me, do you remember? We were up at Hansman  
10 (phonetic) Field.

11 MRS. PINSON: (Indiscernible).

12 GENERAL PINSON: The military was getting  
13 to recognize a need, and they even had planned, and  
14 got sent up to Hansman Field in Massachusetts in 1950.  
15 Taken away from Los Alamos, a duty that I was enjoying  
16 very much, and sent up there to work in this atomic  
17 warfare directive, as head of the Biophysics Division.  
18 But somehow, I still had this project on cloud  
19 penetration. I don't really remember how that came  
20 about.

21 MR. FITZGERALD: It wasn't your primary

1 duties at the time.

2 GENERAL PINSON: Well, I think I was  
3 responsible for that. I'm not sure. I'm not sure.  
4 Certainly the people that operated the drones had the  
5 primary responsibility for operating the drones and  
6 flying through, when they flew through and when they  
7 flew through the clouds and what altitude they went  
8 through.

9 I really don't remember what my duties  
10 were. I don't remember those years.

11 I think that was the test also where we  
12 had some canisters on parachutes that were designed to  
13 measure the dose rate in the cloud. They weren't  
14 dropped with a drone. They were dropped with somebody  
15 else, you know. In an attempt to drop them through  
16 the cloud from the weapon, soon after it went off, in  
17 an endeavor to measure the dose rate at that time.

18 The experiments were a failure, in the  
19 sense in which the canister didn't hit the cloud.

20 MR. FITZGERALD: You're not going to  
21 measure much if it doesn't hit the cloud.

1                   GENERAL PINSON:    The reason I remember  
2                   that was because there some sergeant who later  
3                   maintained that he had been picking up these  
4                   canisters. He had received an unknown but dose that  
5                   he had considered responsible for some physical  
6                   trouble he was having.

7                   When I went back to the project officer,  
8                   I think, who was at that time, I think it was, I'm not  
9                   sure if it was Captain Karaker (phonetic) or not. It  
10                  was Captain Karaker. He was the one who pointed out  
11                  to me that the canisters had missed the cloud, and  
12                  therefore it was not possible that this sergeant had  
13                  gotten any dose whatsoever.

14                  MR.    FITZGERALD:        Certainly not a  
15                  significant one.

16                  GENERAL PINSON:    Captain Karaker was -- I  
17                  guess those people, you know, they were organizing  
18                  this lab up at Cambridge, Atomic Warfare Directorate.  
19                  I was supposed to go up there and gather the people to  
20                  work. The laboratory had not been built yet.

21                  So after we had been up there about a

1 year, they decided that they were not going to build  
2 this Atomic Warfare Directorate. The construction of  
3 it had been predicated upon the Air Force's need to  
4 know such things as the work that I had been doing,  
5 plus some other people had been doing.

6 So when they decided not to build that  
7 thing, then we decided to transfer all those people  
8 from that activity down to Kirtland, which to me, made  
9 a lot of sense, because in order to pursue those  
10 activities, it was best to be associated with the  
11 people at Los Alamos, and to be out near the test site  
12 in Nevada.

13 So I got sent up to Cambridge in 1952 and  
14 back to Kirtland in 1954, without ever having done  
15 anything very much at Cambridge, other than assemble  
16 the people that might have worked in the lab.

17 Many of those people then got transferred  
18 to Kirtland with me. The people that were involved,  
19 I think both Captain Crumbley and Captain Karaker,  
20 were two people.

21 Do you remember any others that went from

1 Cambridge to Kirtland with us?

2 MRS. PINSON: Kyley.

3 GENERAL PINSON: That's right, Kyley. So  
4 that that group that I had assembled up there became  
5 the nucleus of the biophysics group, that Special  
6 Weapons Center at Kirtland in 1954.

7 We were involved in a project in the 1953  
8 test. Both Captain Karaker and Captain Crumbley, I  
9 think, were out there with me. There was a civilian  
10 that was out there at that time. He was sort of an  
11 administrative assistant. For some reason, I remember  
12 his name. Charlie Spindle --

13 (end Pinson 1, begin Pinson 2)

14 It is true, the 1953 tests involved cloud penetration  
15 with drones. There were some animals aboard.

16 What we did with those animals, who took  
17 care of them, who analyzed them afterwards, I don't  
18 remember. I just don't remember. I may or may not  
19 have had some part in it.

20 MR. FITZGERALD: Both of these were kind  
21 of the precursors for the 1955 test, the Teapot test?

1                   GENERAL PINSON:    Right, which was the  
2                   manned test.

3                   MR. FITZGERALD:  Can you tell me something  
4                   about the motivations of moving from the animals?

5                   GENERAL PINSON:  The motivation for all of  
6                   this came from the Operational Air Commands  
7                   operational requirement.

8                   This particularly was sponsored, I think,  
9                   by Strategic Air Command, who had in their  
10                  headquarters a group of scientific people that they  
11                  called an operational analysis group.

12                  I think LeMay was a very astute and  
13                  forward looking commander. He had used such a group  
14                  in his World War II activities in Europe, to try to  
15                  increase the efficiency of their bombing of the  
16                  continent and to reduce their losses.

17                  He had this rather considerable group of  
18                  people which was headed up by a fellow by the name of  
19                  Zimmermann. Zimmermann was the head of the group. I  
20                  never had very much to do with him, but I did have a  
21                  lot to do with his deputy, but I can't remember his

1 name.

2 But the impetus for this, I think, came  
3 from the Operational Air Commands. Particularly, from  
4 SAC.

5 MR. FITZGERALD: Did they think that they  
6 didn't have enough information from the animal  
7 experiments?

8 GENERAL PINSON: Right. Right. Right.  
9 Yes. That's true. So you know, when you talked to  
10 them about it, and say, well you know, we've got this  
11 much information to show you what the dose rate is.  
12 They'd say, well, you know, you tell us that it's  
13 possible for the people to fly through this. But if  
14 it's possible, then why haven't you done it? That's  
15 a good question.

16 MR. FITZGERALD: So you did it.

17 GENERAL PINSON: So we did it. You know,  
18 you have to have the operational requirement, because  
19 you don't get these airplanes for free. You need  
20 airplanes to do this.

21 In the case of the manned fly-throughs,

1        why we had to have the approval for our own aircraft.  
2        Up to that point, the airplanes had been provided by  
3        the Drone Squadrons. I don't know how that happened,  
4        but I guess the drone people were going to fly those  
5        airplanes through the clouds whether our mice were  
6        aboard or not. They didn't fly them through just for  
7        that.

8                        But when it became a matter of the manned  
9        penetration, why then, those airplanes were always  
10       assigned to what was called the Operational Test Group  
11       at Kirtland. This was a group that provided all the  
12       support aircraft to Los Alamos for whatever was needed  
13       in a nuclear weapons test. This was not a part of my  
14       group at Kirtland, nor was I ever a part of this  
15       group.

16                      When it became clear that we were going  
17       to, that the manned penetrations were going to be  
18       done, I didn't know whether they were going to want us  
19       to fly those airplanes or not.

20                      But at any rate, there was a young fellow  
21       who I had known in school, who came to me with a

1 pilot. He wanted to join the group, for purposes of  
2 doing that flying. I said, well, he could join the  
3 group. But as a matter of fact, he was never one of  
4 the pilots in the thing. The test aircraft people  
5 always provided the pilots to the airplanes.

6 MR. FITZGERALD: Were the pilots excited  
7 about doing this or were they hesitant or were they  
8 indifferent?

9 GENERAL PINSON: I don't know. I don't  
10 know. I felt, you know, I later learned that this  
11 fellow that had come to me whose name was Oldfield, he  
12 was excited about it. He thought it was really -- but  
13 he didn't tell me that.

14 This was one of the things you had to be  
15 careful of when you were recruiting people to act as  
16 subjects in these things. You know, what are their  
17 motivations for doing this. What do they expect to  
18 get out of it.

19 As soon as I learned that people, if I  
20 found that anybody was apprehensive about doing it,  
21 then I did not want them to do it.

1                   So therefore, to my knowledge, none of the  
2 people that did this were excited about it. Of the  
3 three pilots that were provided for the manned  
4 penetrations in 1955 in Nevada, I only got to know one  
5 of them very well. That was the fellow that flew me.  
6 He was a young fellow. I think he later became a  
7 lawyer. I'm not sure. I think his name was  
8 Patterson.

9                   The other two that I didn't know very well  
10 was a name by the name of McCullough. I noted when I  
11 read the report, the third one's name was Rowen, R-O-  
12 W-E-N. I don't remember Rowen, but I remember  
13 Patterson. Of those three, I remember Patterson the  
14 best. Of course, he was the one that was flying me.

15                   MR. FITZGERALD: What was his attitude?

16                   GENERAL PINSON: His attitude was very  
17 matter of fact.

18                   MR. FITZGERALD: Just matter of fact?

19                   GENERAL PINSON: Yes. I think he felt as  
20 I did, you know, that it was no big deal. But I'm not  
21 sure what Rowen and McCullough felt.

1                   I made a mistake in adding Charlie  
2 Oldfield to the group because he did not do his job  
3 very well. He caused a lot of dissention in the group  
4 and just wasn't a good choice. I made a mistake.

5                   MR. FITZGERALD: What was he doing that  
6 caused dissension?

7                   GENERAL PINSON: He just wasn't doing his  
8 job. He was supposed to look after the  
9 instrumentation in the aircraft. There were other  
10 people to help him do that. He was letting them do  
11 it.

12                   But I think, I recollect from having read  
13 the report that you sent me, that we made I think five  
14 penetrations in that Nevada, in those years.

15                   In one of those penetrations we got a, you  
16 know, I was trying to plan these to stay within the  
17 proving grounds recommended dose levels, which is 3.9.  
18 This was a dose level that was well publicized.  
19 Everybody participating in the test, and if you got a  
20 dose that was 3.9, well then you didn't do anything,  
21 you couldn't do anything in which you might be further

1 exposed in that test. So if you had to have somebody,  
2 you either got sent home or if you stayed there, you  
3 didn't expose yourself to radiation fields again.

4 MR. FITZGERALD: For the penetrations,  
5 they had a special --

6 GENERAL PINSON: They didn't have any  
7 special dose, as I recall. They didn't have any  
8 special dose for the manned penetrations.

9 MR. FITZGERALD: I think it was 15R.  
10 That's one of the things we were a little confused on,  
11 because the press was reporting it as 3.9, but the  
12 documents that we saw said it was 15.

13 GENERAL PINSON: Said it was 15?

14 MR. FITZGERALD: Here it is.

15 GENERAL PINSON: Well, at any rate.

16 MR. FITZGERALD: Yes. Here it says, this  
17 is Reeves to Parsons. Radiation dosage Project 2.8,  
18 Operation Teapot. Authorization for four U.S. Air  
19 Force officers to be permitted to receive 15 roentgens  
20 of radiation in the accomplishment of Project 2.8.

21 GENERAL PINSON: And this is to Parsons?

1 MR. FITZGERALD: Yes.

2 GENERAL PINSON: He was at Sandia Base.  
3 So he was the guy who was in charge of my activities  
4 out there in 1958.

5 Well, at any rate, you know my plan was to  
6 stay within a limited dose range. There was one  
7 flight in which that was exceeded. The people just  
8 got about twice as much dose on that flight as I  
9 estimated they were going to get.

10 That was just the limits of my ability to  
11 estimate accurately. Also that led to, in the  
12 subsequent tests and the tests in the Pacific, you  
13 know, led to my asking for a higher dose limitation,  
14 then I really ever expected to exceed. I never  
15 intended to exceed a dose level of, oh I guess my  
16 limit, my absolute upper limit was 25. I never  
17 planned a flight in which I thought it was possible to  
18 get more than that.

19 But at the same time, having been  
20 surprised by the result of this one flight in Nevada,  
21 I thought that I ought to request approval for a

1 higher dose, because you know, how important is this  
2 to the Air Force. It's not up to me to decide. It's  
3 up to the people that approve these doses.

4 In my way of thinking, this was a Surgeon  
5 General of the Air Force. He was the guy that we went  
6 to. Now, I was acting under, you know, at Kirtland  
7 I had a medical officer who was a military advisor to  
8 General Canterbury. General Canterbury was chief.  
9 Carl Halpin (phonetic) was his name. He was a very  
10 astute guy. Unfortunately had been a prisoner of war  
11 all during World War II. Had been captured on Bhutan,  
12 so he had had a hard time.

13 MR. FITZGERALD: It would make you strong.

14 GENERAL PINSON: But he knew what war was  
15 like from the worst angle, I guess.

16 At any rate, he was not only responsible  
17 as the medical advisor to Canterbury for my  
18 activities, but those of the Aircraft Test Group. In  
19 these things, you know, I had always tried, since I'm  
20 not a medical man, I always tried to get the advice of  
21 medical people. So I felt Carl Halpin was that

1 person.

2 MR. FITZGERALD: What advice did he give  
3 you?

4 GENERAL PINSON: Well, he was simply my  
5 advisor on approving of these things. What should I  
6 do here. You know, in order to do what has been  
7 requested of me, I feel it's likely, I don't feel I  
8 can do it based upon what had happened in Nevada, that  
9 I can do it with anything less than a 25 roentgen  
10 dose approval.

11 Certainly, 50 would certainly be the  
12 absolute outer limit. So it was he who I think  
13 initiated the correspondence that went through  
14 Headquarters. Out the RDC to Headquarters USAF and to  
15 Surgeon General to get approval for the dose rate that  
16 was anticipated that these operational people are  
17 going to form.

18 This is different from my doing this out  
19 at Kirtland, you know, where people are familiar with  
20 the sampling activities and have some knowledge of  
21 what has gone on and what represents something that is

1 out of line with what has been done before.

2 If you go down and you get some pilots  
3 from one of the operational air command, they have no  
4 experience. They are just in the dark about this. So  
5 they don't have any reason to be, to have any  
6 assurance that -- What are you going to do? The only  
7 way you can give them some assurance is go with them.  
8 That is what I always did.

9 MR. FITZGERALD: You flew during Teapot.  
10 Did you also fly during Redwing?

11 GENERAL PINSON: Oh yes.

12 MR. FITZGERALD: You flew during Redwing  
13 too?

14 GENERAL PINSON: I have a total of 11  
15 penetrations of nuclear clouds in times less than a  
16 hour after detonation.

17 MR. FITZGERALD: Wow.

18 GENERAL PINSON: I always went on the  
19 first airplane. The first airplane to go in.

20 MR. FITZGERALD: So you probably, with  
21 that, you probably are the most exposed veteran that

1           there is.

2                       GENERAL PINSON: I doubt that that has had  
3 anything to do with my high blood pressure and heart  
4 problems.

5                       MR. FITZGERALD: Did you ever experience  
6 any acute effects from any of your flights?

7                       GENERAL PINSON: Any what?

8                       MR. FITZGERALD: Acute effects. Any  
9 immediate effects that you felt differently right  
10 after the flight?

11                       GENERAL PINSON: I don't think. I did  
12 not. I think that was not possible that radiation  
13 doses that I got. I had no reason to expect that  
14 those radiation doses would produce any immediate  
15 effects. As a matter of fact, I was relying upon  
16 Wright Langhan, primarily, for advice on this, because  
17 I felt that he was the most knowledgeable person in  
18 the world on it.

19                       It was our opinion at that time that based  
20 upon all the knowledge available, that any radiation  
21 dose of 50 roentgens or less, would not be detectible

1 in any physiological way. There's no way that you  
2 could detect that.

3 When you got above that, well then you  
4 might begin to see some discrasias in the blood  
5 pattern, of course. Radiation, you know, it affects  
6 the most rapidly growing tissues most deleteriously.

7 In the human body, you know, those tissues  
8 that are growing, that grow the rapide~~st~~, primarily it  
9 is the bone marrow you know, where the blood elements  
10 are manufactured. So you expect first to notice  
11 something, some perhaps change in the white and red  
12 blood cell count.

13 You would expect next, I suppose, you  
14 might expect some indigestion, because the lining of  
15 the gut contains a lot of rapidly growing tissues. So  
16 those are things you would expect at first.

17 At that time, I don't know to my knowledge  
18 what has happened since 1959 when I left the program,  
19 I didn't keep up with that at all.

20 MR. FITZGERALD: I think that's the  
21 current --

1                   GENERAL PINSON: It would not be possible  
2 to detect by physiological means, the radiation dose  
3 of 50 roentgens.

4                   MR. FITZGERALD: Were you ever worried  
5 about any of the doses that you got afterwards?

6                   GENERAL PINSON: Not one iota, because you  
7 know, think about the doses that you get. I've gotten  
8 as much in my 83 years of living, I have gotten as  
9 much radiation dose from background radiation, as I  
10 got during these flights through these clouds.

11                   Now it's true that that all came gradually  
12 over my whole lifetime. Whereas the dose that I got  
13 in the cloud all came within a matter of a few  
14 minutes. But nonetheless, from the point of view of  
15 what's a deleterious affect on the body, I think it's  
16 the same. So I never worried one bit.

17                   I felt, you know, as a result of this  
18 radiation exposure, any adverse, anything that happens  
19 adversely to the body which is the result of  
20 radiation, whatever that may be, I was putting myself  
21 at risk. This would perhaps double it.

1                   How much radiation have you had from x-  
2                   rays. If you're in the military service, you have to  
3                   have, you get a couple of x-rays every year. You have  
4                   to go to a physical exam once a year, and you'd always  
5                   get a couple of x-rays.

6                   MR. FITZGERALD: They always x-rayed you?

7                   GENERAL PINSON: The dose that you get  
8                   from x-rays, it's not possible to say because it's so  
9                   different in different parts of the body.

10                   If you are taking an x-ray of the chest,  
11                   then certainly you don't get much radiation dose to  
12                   your feet or your hands. But the difference in the  
13                   radiation dose that you get on the entrance side of  
14                   the body, versus the dose that you get on the exit  
15                   side, is tremendous.

16                   It used to be even more tremendous when  
17                   you had the 60 kilovolt x-ray machines, you know.  
18                   This was soft radiation. You got lots of attenuation  
19                   as you went through the body.

20                   So in order to get a picture, which  
21                   required, let's say at that time, about 100

1 milliroentgens, you had to put a lot of radiation. So  
2 you get lots of radiation from x-rays, but it's  
3 localized. It's the highest in that area of the body.

4 You know, you stand up to the x-ray  
5 machine. Usually you face it, so the x-ray machine is  
6 behind you. So the biggest dose you get is to your  
7 back. If you turn to the side, of course, the side  
8 that goes in is biggest.

9 But I would suspect, I'm sure that I've  
10 had, locally at least to the back, far more radiation  
11 from x-rays than I got during these tests. I never  
12 felt it was a consequential dose at all.

13 If I had felt it was a consequential dose  
14 I would not have done it. I have been involved in  
15 enough research activities during my lifetime, so that  
16 if I were the least bit rash about it, I would not be  
17 here. I don't think that hazard is significant.

18 I was in England in Normandy during the  
19 war, when my life was in far greater danger there,  
20 especially in Normandy, than it was during any of this  
21 activity here. It's a different kind of thing, of

1 course.

2 But I felt that in war time, such  
3 radiation doses are reasonable for people.

4 SAC was very interested in what was going  
5 to happen to their crew. They want to know whether  
6 these crews are going to be able to operate if by  
7 chance, if by accident, they should fly through the  
8 cloud of one of these weapons, you know, at some  
9 unspecified time afterwards. How many people are they  
10 going to have that are incapacitated for any future  
11 flights.

12 It's a reasonable thing to want to know.  
13 They have to know it, because if they are surprised  
14 and these people are going to get sick from just  
15 flying through a cloud an hour after the weapon goes  
16 off, then they've got to plan to avoid it.

17 So I thought their operational requirement  
18 was reasonable. I thought what we were doing to  
19 satisfy that was reasonable. I would just as soon  
20 that they had taken the data from the drone airplane  
21 flight. Since they didn't choose to do that, then I

1 felt that I was doing a service to the country in  
2 order to prove to them more conclusively to their  
3 satisfaction, that it was possible to do it.

4 MR. FITZGERALD: Do you remember who at  
5 SAC was most, do you remember who was asking you for  
6 the data and didn't think that the drone data was  
7 significant enough?

8 GENERAL PINSON: It was the people in the,  
9 what did I tell you earlier, operational requirements.  
10 What's the name of it? I had the name of it earlier.

11 MR. FITZGERALD: Operation requirements --

12 GENERAL PINSON: It's the group that  
13 Zimmermann was the head of.

14 MR. FITZGERALD: Is it the Operational Air  
15 Command at SAC?

16 GENERAL PINSON: No.

17 MR. FITZGERALD: I must have gotten it on  
18 the tape. I don't have it written down.

19 GENERAL PINSON: I'm sorry I can't --

20 MR. FITZGERALD: Oh no. That's fine.

21 GENERAL PINSON: When I spoke of that

1 before, I think I got it right, the name of the group.  
2 It's the group that Dr. Zimmermann was the head of.  
3 Research Analysis Group.

4 MR. FITZGERALD: Oh. That's right.

5 GENERAL PINSON: I think the Research  
6 Analysis Group.

7 MR. FITZGERALD: Research Analysis Group.

8 GENERAL PINSON: Now I felt that this  
9 work, my personal feeling was that this work was more  
10 pertinent to Air Defense Command, but Air Defense  
11 Commands, I don't know if they, I never had any  
12 contact with them that indicated what their feelings  
13 were.

14 MR. FITZGERALD: Just with the Research  
15 Analysis Group.

16 GENERAL PINSON: But undoubtedly, you  
17 know, Headquarter USAF was satisfied that this was a  
18 requirement enough, so that they would be willing to  
19 assign the airplane to do it.

20 If they could find somebody like me to  
21 undertake the measurement of it. I had very little to

1 say about whether I got the airplane or not. You had  
2 to get the Headquarter USAF approval for it.

3 You know, they tell tactical air command  
4 to supply the airplanes. We had specified the  
5 airplane that we thought was most suitable for the  
6 tests out in the Pacific. Then I went to the base.

7 You know the group, the base, where these  
8 crews and these airplanes were to come from, I visited  
9 there and talked to the whole group about what was  
10 planned in the Pacific.

11 MR. FITZGERALD: Is that the briefing that  
12 you --

13 GENERAL PINSON: No. I don't know what  
14 that is. That doesn't seem to me like it's my  
15 briefing. But it is a briefing on the situation as of  
16 about 1955.

17 MR. FITZGERALD: One of the things that we  
18 have been trying to figure out is how this worked  
19 bureaucratically? For example, when the early cloud  
20 penetration experiments were conducted with animals in  
21 1951 and 1953, they were under Project Four, the

1 Biomedical Project, which you were the project  
2 director of in 1953.

3 GENERAL PINSON: In 1953, yes.

4 MR. FITZGERALD: But then when they were  
5 conducted at Teapot and Redwing, they moved to Project  
6 Two, which was the Effects of Radiation, I think. I  
7 forget the exact title.

8 Do you remember why they were changed in  
9 the bureaucracy?

10 GENERAL PINSON: No. I don't. It hadn't  
11 occurred to me. What were they under in, under the  
12 Biomedical Group in Greenhouse.

13 MR. FITZGERALD: In Greenhouse.

14 GENERAL PINSON: In the 1953 test. And  
15 then in 1955 and 1956, they were under what?

16 MR. FITZGERALD: I forget the name of it,  
17 but it was Project Two, which was I think Effects of  
18 Radiation. I forget the actual term, but it wasn't  
19 biomedical.

20 GENERAL PINSON: It was not biomedical?

21 MR. FITZGERALD: No. It was not

1 biomedical.

2 GENERAL PINSON: No. I don't know. I  
3 don't know that that's true, but if you say it is, if  
4 it is true, I don't know why.

5 MR. FITZGERALD: Okay. Because it seemed  
6 like the two tests were a follow-up on the manned  
7 early cloud experiments, were a follow-up on the  
8 animal experiments, the drone flights.

9 GENERAL PINSON: Yes. The main difference  
10 that I can think of, you know, the people that  
11 operated the drones were at Eglin Field. They were  
12 the principal, you know, the drone operators are the  
13 thing that makes it go.

14 Whereas, I don't know why they would, when  
15 they came under the test director, why they would be  
16 any different than later on.

17 MR. FITZGERALD: Right. We couldn't  
18 figure out either. It might be one of those mysteries  
19 that will remain.

20 Were you generally happy with the rad safe  
21 standards that were set down?

1 GENERAL PINSON: Yes.

2 MR. FITZGERALD: Do you think they were  
3 too restrictive or too lenient, either way?

4 GENERAL PINSON: I guess I grew up, it was  
5 at Los Alamos, if you follow the philosophy that you  
6 want to keep radiation doses to the minimum, then it's  
7 impossible to meet it, because zero is the minimum.  
8 You can't do that.

9 I think that they had in the test  
10 activities, a proper attitude towards the limits that  
11 they set. I think that they tried appropriately to  
12 keep people within those limits. People do awful  
13 stupid things, you know, if you don't have some  
14 control of them. So I think they were good standards.

15 I think also they had a good attitude  
16 toward bending those standards when it was necessary.  
17 So I think those were good standards.

18 At the same time, I think that the public  
19 at large and our government as a whole, has a very,  
20 that their attitude toward these things has resulted  
21 in a failure to develop nuclear power in this country.

1 I think that is going to be a serious economic factor  
2 to them in the future, where other countries that have  
3 got a more, I think, reasonable attitude toward it.  
4 I think the hazards of radiation are far less than the  
5 hazards of other kinds of pollution that are taking  
6 place.

7 We have instruments that are so sensitive  
8 to radiation, that it seems to be beyond our ability  
9 to use them intelligently. You can take a Geiger  
10 counter and hold it up to radiation stores and the  
11 thing will just go wild. It may not be very hazardous  
12 at all. You can certainly measure it.

13 No. I think it's wise to have ~~the~~  
14 standard. I think their standards are quite  
15 reasonable. It is my recollection that the general  
16 conclusion broadly at that time was that in  
17 circumstances like it worked, it was perfectly  
18 reasonable to have a radiation tolerance of lets say  
19 10 times background. You know, what's the background  
20 of radiation. It varies a great deal depending on  
21 location.

1                   For example, you know this work that I did  
2                   on tritium at Los Alamos, you know, where I used  
3                   myself repeatedly in those experiments. I think I  
4                   went and calculated and I found that because you are  
5                   at 7,500 feet, you are getting a higher background  
6                   radiation than you are at sea level.

7                   I think the three years that I was at Los  
8                   Alamos, I got more radiation from the increased  
9                   background radiation at that altitude, then I got from  
10                  the experiments.

11                  MR. FITZGERALD: From the experiments.

12                  GENERAL PINSON: Yes. So I don't know  
13                  that that's true. I'd have to calculate that again.

14                  MR. FITZGERALD: Right. But it's quite  
15                  possible.

16                  GENERAL PINSON: It's possible. If  
17                  something like that is true, it's obvious the amount  
18                  of dosage I got is insignificant.

19                  MR. FITZGERALD: Right.

20                  GENERAL PINSON: In these fly-through  
21                  experiments, I always felt that the operational

1 hazards of flying in the aircraft were far greater to  
2 me than anything else. Unfortunately, Captain  
3 Crumbley paid the price for that.

4 MR. FITZGERALD: Did he?

5 GENERAL PINSON: He was killed in an  
6 airplane crash.

7 MR. FITZGERALD: What test was that?

8 GENERAL PINSON: That was in Greenhouse.

9 No, no, no. Redwing.

10 MR. FITZGERALD: Redwing?

11 GENERAL PINSON: Yes. We took off one  
12 morning in tandem and the weather was bad. His pilot  
13 I think wasn't very alert. The airplane blew up and  
14 crashed. They were killed.

15 MR. FITZGERALD: Did they figure out what  
16 caused it?

17 GENERAL PINSON: Yes. This airplane, B-  
18 57, the fuel mixture gets into the jet engine, I  
19 think. I'm not an expert on this. This is just my  
20 understanding of how it works. Is the control by a  
21 small peto tube that sticks out. The air that comes

1 in, the amount of air that comes in determines the  
2 mixture. There's something about when it ices up,  
3 then the engine overheats. So the pilots, when you  
4 are in icing weather conditions, then the pilot has to  
5 be very alert to that, to the engine temperature, to  
6 make sure it does not get too hot.

7 MR. FITZGERALD: What probably happened  
8 was he didn't see that it was too hot?

9 GENERAL PINSON: Yes. He was not alert  
10 enough. Or at least that's what Colonel Furman told  
11 me.

12 Incidentally, you know, Colonel Furman was  
13 the fellow that was in charge of this group from  
14 Tactical Air Command. I talked to him about the  
15 possible, you know, what was the attitude. You asked  
16 me what were these people, did they think were afraid  
17 of this? He assured me that they were not concerned  
18 about these flights. That's hearsay.

19 I was not close enough to those pilots so  
20 that I was able to express to you any valid opinion  
21 about whether they were concerned about it or not. As

1 far as I knew, they were not concerned.

2 When I talked to him at the base where  
3 they came from and I told him that they didn't have to  
4 do this if they didn't want to. It would not have  
5 influenced their military career whatsoever.

6 Furman, he told me that they all had a  
7 choice. I haven't kept track of those people. I  
8 don't know how many of them there were. There were  
9 about 15 of them, I think.

10 They had more pilots than they had  
11 airplanes, because anytime anybody ever got a  
12 significant dose, why we would let them go home.

13 MR. FITZGERALD: The, I think it was  
14 called the Office of Information Services, it was just  
15 an organizational thing in the Air Force that was  
16 publicizing your work or reporting on it, said that  
17 after your work, after the experiments at Teapot and  
18 Redwing, that the morale in the Air Force was at an  
19 all-time high. Basically because they didn't think  
20 that they would have to, they knew they wouldn't be  
21 injured if they flew through a nuclear cloud in

1 combat.

2 GENERAL PINSON: I don't know that that  
3 was true. I have no opinion on that. It sounds to me  
4 like a public relations.

5 MR. FITZGERALD: Public relations stuff.

6 GENERAL PINSON: I don't know. The people  
7 at SAC, when I came back from the Pacific, the first  
8 thing I did when I hit the coast out there, I called  
9 them up and said I'll be up to talk to you.

10 They said, you don't have to come. We've  
11 been reading the twixes coming back from the Pacific.  
12 You know, every time we'd make a penetration, why we  
13 would tell them what altitude, what the information  
14 was on it, how much dose we got. They said they had  
15 all the information they needed. They were satisfied  
16 now.

17 MR. FITZGERALD: So is that at Redwing, do  
18 you think that SAC wasn't satisfied with the  
19 information at Teapot, because it wasn't a thermal  
20 nuclear device?

21 GENERAL PINSON: Also, there are lots of

1 differences between them. You know, the  
2 characteristics of the cloud. The clouds from Teapot,  
3 you'll notice from the reports. You know, you get  
4 through them in less than a minute. The clouds in the  
5 Pacific, depending on what altitude, are much  
6 different.

7 Fortunately, in the case of bigger  
8 weapons, the cloud is, the radiation hazard is at a  
9 maximum above your operating altitude of the aircraft.

10 MR. FITZGERALD: Oh, okay. So you had to  
11 go in at a point where it was lower.

12 GENERAL PINSON: We were going in at  
13 higher altitudes in the Pacific than we went ~~in~~  
14 Nevada. But we were still in the stem of the cloud.

15 MR. FITZGERALD: You never made it up to  
16 the mushrooms it was so high?

17 GENERAL PINSON: But when you got up close  
18 to the mushroom, you got more dose.

19 MR. FITZGERALD: Right.

20 GENERAL PINSON: So that the higher  
21 altitude you got, the more dose you got. But you

1 know, it took a matter of like five or six minutes to  
2 get through the upper, the cloud in the Pacific.  
3 Whereas it took less than a minute in Nevada.

4 But the dose rates, the big weapons derive  
5 their energy, a much higher percent of their energy  
6 from fusion than the smaller weapons do. This reduces  
7 the radiation dose rate, and it's about  
8 proportionately.

9 Let's say you have a weapon that's, just  
10 for the hell of it, I'm not sure how far we went  
11 toward getting what we called a clean weapon. Let's  
12 just suppose that I was able to provide you with a  
13 bomb that is only 10 percent fission and 90 percent  
14 fusion. Then the radiation dose in that cloud will be  
15 one-tenth of what it would be in a purely fission  
16 weapon.

17 So that's one of the things that reduces  
18 the dose that got in the Pacific.

19 (End Pinson 2, Begin Pinson 3)

20 GENERAL PINSON: -- at the altitude at  
21 which you're operating. Whereas, in the Pacific, the

1 biggest portion of the cloud is above the altitude at  
2 which you're operating.

3 MR. FITZGERALD: Okay. So one of the  
4 other things that seemed to come out of these  
5 experiments was that some people in the Air Force, a  
6 Colonel Keiffer, for example, is pushing to have -- to  
7 eliminate decontamination on many of the Sampler  
8 pilots, Sampler aircrafts. Was that part of the  
9 motivation to undertake the experiment, or was that  
10 just kind of an after effect?

11 GENERAL PINSON: I think that was an after  
12 effect that was not -- you know, it was -- on my part,  
13 you know, the experiments that we did were simply to  
14 see what the hazard was in the maintenance of the  
15 airplane. As I said, I had been in England, and  
16 things are pretty hectic in wartime. And you don't --  
17 you sure as hell don't want to be spending your time  
18 decontaminating airplanes if you don't have to.

19 MR. FITZGERALD: Right.

20 GENERAL PINSON: And so if you don't want  
21 to -- do you have to decontaminate the airplanes? And

1 the answer is, well, yes and no. If you want to keep  
2 the radiation dose to a minimum, you have to  
3 decontaminate them. But if you can tolerate the  
4 radiation dose that you have without decontaminating  
5 them, then you can save a hell of a lot of money and  
6 a hell of a lot of time.

7 MR. FITZGERALD: Right.

8 GENERAL PINSON: So, you know, the  
9 question is, do you have to contaminate them? You  
10 know, we were -- I think the people at Los Alamos, and  
11 there is a fellow there, you know, in charge of the  
12 cloud sampling thing, Hal Plank, Dr. Plank. His  
13 motivation was to, you know, keep this to absolute  
14 minimum, so he was -- you know, these people in the  
15 test group that are doing the sampling were operating  
16 under his direction, and they were using such things  
17 as they used forklifts to get people out of the  
18 airplane and to come back.

19 You know, and people come back and sit on  
20 the forklift, come up and get them, and they were, you  
21 know, decontaminating the airplanes, you know, right

1 after they got back.

2 Well, the airplanes that we were working  
3 on, we required that they not decontaminate them. If  
4 they didn't want them in their area, then put them off  
5 in the boondocks. You know, put them off way down at  
6 the end of the thing and let us work on them. So we'd  
7 go down there and work on and in these airplanes, and  
8 the other people who had been afraid to get near them  
9 until after they had decontaminated, they saw this,  
10 and so they were, you know, skeptical about the need  
11 for decontamination.

12 MR. FITZGERALD: Right.

13 GENERAL PINSON: So that caused a problem?  
14 I think, within the test group because the -- you  
15 know, Hal Plank wanted them to do one thing, and this  
16 was causing them a lot of grief that they felt was  
17 unnecessary, so -- but I never did try to get into  
18 that argument. All I was trying to do was to tell the  
19 operational air commands whether they could do  
20 something or not. And what I was saying was if you  
21 don't want to decontaminate these airplanes you don't

1 have to, if you're willing to accept this additional  
2 dose. It was small.

3 And the -- I guess the person that I had  
4 that was in charge of that activity was Jim Dick. He  
5 was also one of the people that went out in the  
6 Kirtland (phonetic) with me from Cambridge Research  
7 Lab. I had known none of those people prior to my  
8 assignment in Cambridge in 1952. Tom Krumley  
9 (inaudible). I don't know. Did Nickelson go down  
10 there with us from --

11 MRS. PINSON: I don't think so.

12 GENERAL PINSON: Kiley went. But I don't  
13 think I mentioned Dick before when I was trying to  
14 think of the people that went down.

15 MR. FITZGERALD: So --

16 GENERAL PINSON: I think our own people,  
17 there were none of them that were concerned about  
18 this. They were -- I gave all of them permission if  
19 they wanted to do it to make one of these  
20 penetrations, and some of them chose to do it and some  
21 did not. I never asked the ones that didn't choose to

1 do it, I didn't ask them --

2 MR. FITZGERALD: Right.

3 GENERAL PINSON: -- were they afraid. I  
4 just said that they didn't have to. You know, it was  
5 -- it meant nothing to me whether they did or not.  
6 But the ones that came to me and said, "You know, I'm  
7 involved in this project. I'd like to do it." You  
8 know, why I said, "Okay." So to the extent that those  
9 people were exposed, then it's my fault. But they  
10 felt comfortable doing it.

11 MR. FITZGERALD: Right.

12 GENERAL PINSON: And so I felt it was fair  
13 to them to let them do it because they had worked  
14 hard, and I think -- I think Keraker was one of the  
15 people. Krumley went on a lot of flights. He was a  
16 real -- he was the project officer next to myself. I  
17 had too much -- too many administrative  
18 responsibilities for this whole group of people to be  
19 involved in the details of this, and so Krumley was  
20 the guy that did that, along with Keraker.

21 MR. FITZGERALD: So let me -- I want to

1 make sure I have the -- one of these points straight.  
2 When the aircraft that -- the early penetration  
3 aircraft you didn't decontaminate under the same  
4 procedures as the Sampler aircraft were  
5 decontaminated? Is that correct? That's why --

6 GENERAL PINSON: Eventually they were.

7 MR. FITZGERALD: Eventually, but not as --

8 GENERAL PINSON: Not immediately.

9 MR. FITZGERALD: Not immediately.

10 GENERAL PINSON: No.

11 MR. FITZGERALD: And that's what caused  
12 some tension, because some people saw that you could  
13 do some work on the aircraft without first  
14 decontaminating it, and then --

15 GENERAL PINSON: Right.

16 MR. FITZGERALD: Okay. That makes -- that  
17 explains a lot of the -- all of a sudden why this  
18 became an issue, because it's kind of strange that --

19 GENERAL PINSON: They had -- you know, the  
20 people that were doing this, the maintenance people  
21 were told that, you know, these things are just so hot

1 you can't get near them, you know, so -- well, that  
2 was not accurate. And I think, you know, they were  
3 doing it primarily to keep the radiation dose to a  
4 minimum.

5 And you asked me that question do I think,  
6 you know, the effort to do this is reasonable, and I  
7 thought in most cases it was. But I think there were  
8 some cases in which it was overdone, and I think even  
9 in rad safe itself there are a lot of situations in  
10 which the rad safe officer overdoes the thing because  
11 you can -- in an endeavor to keep the dose to a  
12 minimum, you can levy almost any requirement as we  
13 mentioned earlier.

14 You know, you can't achieve zero, but you  
15 can spend an awful lot of what I thought was not  
16 entirely useless effort, but certainly effort trying  
17 to achieve that. But in wartime, you know, and I  
18 thought, you know, this was serious --

19 MR. FITZGERALD: Right. In wartime, it  
20 would be much different.

21 GENERAL PINSON: Yeah. You know, and I

1 thought that we were -- if we weren't at war in the  
2 1950's, you know, we could be at any time. And, you  
3 know, my feeling about what the Russians were going to  
4 do about -- you know, I suspect the way you might feel  
5 about, what do you think Saddam Hussein would do now  
6 if he had the capability? You know, he's  
7 unpredictable.

8 MR. FITZGERALD: Right. And the  
9 perception at the time was Russia was very  
10 unpredictable. Is that correct?

11 GENERAL PINSON: On the other hand, it was  
12 a small group of people -- you know, a small  
13 percentage of the people that were -- that felt that  
14 Russians were our friends, and they had certainly  
15 borne the brunt of the personnel losses in World  
16 War II. The people were too easy to forget, but they  
17 didn't have any choice, that they signed a non-  
18 aggression pact with Hitler until Hitler attacked  
19 them.

20 MR. FITZGERALD: Right.

21 GENERAL PINSON: And so they had no

1 choice. And so they were our friends of necessity,  
2 and I felt, you know, their actions in Berlin, the  
3 necessity for the airlift, was an indication of that.  
4 So I didn't -- while we weren't at war, I felt we  
5 could be at war at any time, and that the information  
6 that we were collecting was really that official.

7 I'm not sure that the operational people  
8 of the Air Force were ever sufficiently aware or  
9 concerned about that so that this PR thing that you  
10 mentioned is justified, but I thought it was very  
11 valuable and -- at that time, and I still think it was  
12 valuable. But today, I don't think so. You know, if  
13 somebody tried to get me to do it today, I'd say  
14 sir.

15 MR. FITZGERALD: Just because there is not  
16 the perceived need.

17 GENERAL PINSON: There is not the need for  
18 it, I think, and, you know, it's -- at that time,  
19 there was only one way to deliver weapons in war and  
20 that was by airplane. It was limited, you know.  
21 There was some missiles before the end of World

1 War II. But, you know, a complete missile force, you  
2 know, of either Russian or we never achieved it until  
3 the 1960's.

4 So this work was, like I say, extremely  
5 useful for a limited period of time -- limited period  
6 being maybe 10, 20 years, something like that, but not  
7 very useful now.

8 MR. FITZGERALD: Right. One of the things  
9 we didn't talk about was the other part of Teapot  
10 Project 2.8A, which was the study to determine the  
11 hazards to ground crews from the early penetration  
12 flights.

13 GENERAL PINSON: Yes.

14 MR. FITZGERALD: And some -- I think there  
15 were -- taped some film badges on the fuselages and  
16 also some, you know, material from gloves to see which  
17 glove was more effective.

18 GENERAL PINSON: Yes.

19 MR. FITZGERALD: It also -- although it  
20 mentions it very briefly, it says that some  
21 individuals placed their hands on the fuselage to

1 determine levels of radiation. Do you remember much  
2 about that research?

3 GENERAL PINSON: No. I suspect that --  
4 you know, that Jim Dick may have done that. Then,  
5 maybe one or two of his people. But, you know, he was  
6 a careful guy, and he wouldn't have been rash about  
7 it.

8 It would be, of course, pertinent to know  
9 if you put your finger on there, you can determine how  
10 much dose you're going to get when you put your finger  
11 on it because you can put the film badge element in  
12 and it will tell you.

13 MR. FITZGERALD: Right.

14 GENERAL PINSON: It will tell you how much  
15 radiation there is there, and therefore, if you put  
16 your finger on there and it -- even though your finger  
17 is going to get the same amount.

18 MR. FITZGERALD: Right.

19 GENERAL PINSON: The dose rate -- then,  
20 when you take your finger off, how much dose you get  
21 depends upon how much sticks to your finger. So their

1 method of doing that was not put the film badge on the  
2 (?), put their finger on it, put their finger on the  
3 film badge, and then after they laid it on the film  
4 badge long enough to get a reading they'd go wash  
5 their hand.

6 MR. FITZGERALD: Right.

7 GENERAL PINSON: So --

8 MR. FITZGERALD: Do you remember how many  
9 people were involved in that?

10 GENERAL PINSON: No, I don't know.

11 MR. FITZGERALD: Was --

12 GENERAL PINSON: I would say, you know,  
13 only one or two I would think.

14 MR. FITZGERALD: Right.

15 GENERAL PINSON: And Jim Dick would  
16 probably know that.

17 MR. FITZGERALD: Is he still alive, Jim  
18 Dick?

19 GENERAL PINSON: He's still living.

20 MR. FITZGERALD: He is still alive?

21 GENERAL PINSON: What?

1 MR. FITZGERALD: Is he still alive?

2 GENERAL PINSON: Yeah.

3 MR. FITZGERALD: Okay. Where is he  
4 living?

5 GENERAL PINSON: In Albuquerque, I think.

6 MR. FITZGERALD: Oh, in Albuquerque?

7 GENERAL PINSON: Yeah. And I think there  
8 was a fellow that was helping. There was, you know,  
9 several younger officers, and we had a couple of  
10 master sergeants in the organization who were helping  
11 out with this, very intelligent people, and the master  
12 sergeant I just happened to come across.

13 One of them's name -- one of them called  
14 me up about a year ago. His name was Pulliam, I  
15 think, and there was another one. I think his name  
16 was Schaus, S-C-H-A-U-S, or something like that. They  
17 were both good people, and they weren't concerned  
18 about this work.

19 But you never can be -- and I think  
20 Sergeant Pulliam was one that worked with Jim Dick,  
21 but I'm not sure of that, on the airplane

1 contamination.

2 MR. FITZGERALD: Okay.

3 GENERAL PINSON: And we had some younger  
4 officers that were working for us at that time out at  
5 Kirtland, but we never got them involved in any of the  
6 experiments in which they would be exposed. We just  
7 thought -- I just thought it was better not to do  
8 that. It's kind of like with -- you have somebody  
9 working for you, well, then, you want to -- you  
10 hesitate to let them -- like the technicians, I had a  
11 couple of technicians at Los Alamos that knew about  
12 the work that I was doing with tritium, and they  
13 offered to be subjects in the thing, but I said no.  
14 I appreciated their offer, but I didn't think I ought  
15 to do it.

16 MR. FITZGERALD: So why are you saying --  
17 why didn't you want --

18 GENERAL PINSON: Well, I'm doing the  
19 experiment and they're working for me, so, you know,  
20 some reason to think that they might do it, you know,  
21 thinking they're going to benefit from it.

1 MR. FITZGERALD: Right. In terms of  
2 getting in good graces with the boss.

3 GENERAL PINSON: Right. Right. So --

4 MR. FITZGERALD: So you tried to avoid --

5 GENERAL PINSON: I tried to avoid things  
6 like that.

7 MR. FITZGERALD: Okay.

8 GENERAL PINSON: At the same time, you  
9 know, you can't -- there are some times when you can't  
10 do that, and I think the situation with Paul Krumley,  
11 is an example. He went on the flights just as I did.  
12 It was his choice, but he was the project officer.

13 MR. FITZGERALD: Right.

14 GENERAL PINSON: And Jim Dick did the  
15 experiments. He's the project officer. But I think,  
16 you know, when it's possible to do it without  
17 involving people that are your subordinates you ought  
18 to avoid it.

19 MR. FITZGERALD: Yeah.

20 GENERAL PINSON: The work that we did at  
21 Wright Field, you know, frequently involved human

1            experimentation, doing work on the ejection seat or --  
2            and the people that did that they tried -- not only do  
3            you try to do it yourself, but you had other people  
4            that were involved in similar work.

5                            I wasn't the project officer, for example,  
6            on the explosive decompression work that we did, but,  
7            you know, Mike Sweeney, who is a friend of mine, and  
8            whose judgment I trusted, and he was doing the work.  
9            And when it came time to initiate -- to do the human  
10           experiments I offered to do it, and because I had such  
11           confidence in him and I knew that he needed a  
12           volunteer.

13                           MR. FITZGERALD: What type of thing did  
14           you do?

15                           GENERAL PINSON: Well, it's in the early  
16           experiments, the -- I guess ultimately we got down to  
17           where we had a mock-up cockpit about the size of a  
18           fighter cockpit, to put it in a pressure chamber which  
19           you could evacuate the air. And then, at one point on  
20           this cockpit they had a big hole that was about a foot  
21           and a half in diameter that was covered with paper.

1                   And so when you put this paper under  
2                   pressure it will hold until it ruptures. But if you  
3                   cut it with something sharp, once the paper is broken  
4                   in one place the whole thing goes. You get a, you  
5                   know, an explosive decompression in that cockpit.  
6                   This is similar to what the pilot might get if he's  
7                   flying at high altitude in a pressurized cockpit.

8                   And in the days, you know, before -- when  
9                   I went to Wright Field, they had just built the first  
10                  pressurized airplane. It's called a C-35, and I flew  
11                  in it. But, you know, when you build a lot of  
12                  airplanes that are pressurized, then you need to know  
13                  whether -- we did some experiments, you know, probably  
14                  in this day wouldn't be permitted. But the first  
15                  connie that was ever built, you know, in those days  
16                  all of the new airplanes came to Wright Field for  
17                  test. And this connie had worked up, you know, this  
18                  decompression where you felt confident it could do it  
19                  in an airplane, doing it in that connie with some  
20                  volunteers from the lab.

21                  MR. FITZGERALD: So did you actually take

1 the airplane up and --

2 GENERAL PINSON: Took the airplane up to  
3 altitude and had it with one of the windows, like I  
4 described, you know, with the paper on it, when it got  
5 up to altitude you broke it so you could decompression  
6 it and (inaudible).

7 MR. FITZGERALD: Everyone was safer.

8 GEN. PINSON: Well, you're absolutely  
9 confident in a situation like that that nothing is  
10 going to happen.

11 MR. FITZGERALD: Right.

12 GENERAL PINSON: I would say that was back  
13 in the World War II years.

14 MR. FITZGERALD: One of the things I  
15 wanted to ask about -- about the rad safety was --  
16 it's difficult for us to try to reconstruct the roles  
17 that the AEC played and the Department of Defense.

18 GENERAL PINSON: The roles that what?

19 MR. FITZGERALD: The Atomic Energy  
20 Commission and the Department of Defense. Who was  
21 really in charge? The AEC set down some standards --

1       you know, set down the standards of 3.9R. Did -- when  
2       you -- for example, the exemptions at Red Wing, did  
3       you have to -- did the AEC have to sign off on that,  
4       or was that just a decision within the Department of  
5       Defense?

6                   GENERAL PINSON: Right. Yeah.

7                   MR. FITZGERALD: So it just had to be a  
8       decision within the Department of Defense?

9                   GENERAL PINSON: Well, it was a decision  
10       which AEC signed off on upon the request of the  
11       Department of Defense.

12                   MR. FITZGERALD: Okay. So the Department  
13       of Defense was just -- would request that --

14                   GENERAL PINSON: Right.

15                   MR. FITZGERALD: -- from the AEC, and then  
16       the AEC would --

17                   GENERAL PINSON: Yeah.

18                   MR. FITZGERALD: -- would sign off. Did  
19       you think there might be problems with getting the AEC  
20       to sign off on this?

21                   GENERAL PINSON: No, I didn't think so.

1 But Tom Shipman, I came under his supervision at Los  
2 Alamos, he was in charge of the health division there,  
3 and so he was in charge of the rad safe activities, as  
4 well as the research activities. So I have a lot of  
5 respect for him. He's a good guy, and, you know, he  
6 had been a physician in some industrial organization  
7 before he joined the AEC. So he was a sensible,  
8 intelligent person.

9 MR. FITZGERALD: He wrote some of the most  
10 eloquent memos that I think I've ever read.

11 GENERAL PINSON: What?

12 MR. FITZGERALD: He writes the most  
13 eloquent memos that I've ever read. He's --

14 GENERAL PINSON: Oh, yeah. That's right.  
15 He does, doesn't he?

16 MR. FITZGERALD: Yeah.

17 GENERAL PINSON: Yeah. He was a great  
18 guy, and I -- Tom and I were -- we were not close, but  
19 we were good friends. He was -- incidentally, he was  
20 in charge of the rad safe activities at Ranger. You  
21 know, we talked about the first test in Nevada in

1 1951, and I was out there (inaudible). Tom Shipman  
2 was in charge of those.

3 MR. FITZGERALD: So you were under his  
4 supervision at --

5 GENERAL PINSON: I was under his  
6 supervision out there as well as at Los Alamos. And  
7 I don't know, you know, I don't know when the rad safe  
8 activities, you know, when -- in the early tests, the  
9 people at Los Alamos were responsible for those  
10 primarily, and I don't know when that stopped.  
11 Certainly, that was true in Ranger and in Greenhouse.

12 I don't -- it was a big drain on their  
13 manpower to do that because it took a lot of people  
14 for the rad safe --

15 MR. FITZGERALD: Right.

16 GENERAL PINSON: -- and so I think as the  
17 military organizations developed man rad safe  
18 capabilities, then these rad safe people from the  
19 military were assigned to the task force, and they  
20 came under the supervision of the laboratories. And  
21 all of the scientific laboratories out there came

1 under the -- somebody from the labs, except in 19  
2 and then the last -- in Bikini, in the early part  
3 the '58 test and in the latter -- in the latter part  
4 of the '58 test I was in charge. I was the only  
5 military guy that was ever in charge of that, because  
6 this had to -- this showed the confidence that  
7 people in the labs had in me, and I was highly honored  
8 for that because they didn't do that very often.

9 MR. FITZGERALD: Right.

10 GENERAL PINSON: You know, they -- and  
11 don't know. They didn't have a -- didn't have a high  
12 regard for the military, and I don't blame them too  
13 much.

14 (Laughter.)

15 MR. FITZGERALD: You don't blame them?

16 GENERAL PINSON: Not too much, no. The  
17 military is a hard organization for a scientist  
18 to operate in.

19 MR. FITZGERALD: How is it different than  
20 the AEC? Since you were at both, you were -- since  
21 you were at Los Alamos and in the military, how is

1 more difficult to operate in the military?

2 GENERAL PINSON: Well, the people that are  
3 in the supervisory positions at Los Alamos are highly  
4 qualified technically. And that's generally not true  
5 in the military because the military doesn't reward  
6 those people in keeping with their talents. And so,  
7 therefore, you have to have a lot of dedication to  
8 what you're doing in order to be there because you're  
9 paying allowances that aren't any different from  
10 anybody else's.

11 MR. FITZGERALD: Right. So why did you  
12 stay in?

13 GENERAL PINSON: I got that satisfaction  
14 out of the activities that I was engaged in in World  
15 War II that I decided to stay in and try it for a  
16 while. And the -- I was really awfully tempted to get  
17 out after my assignment at Los Alamos because, you  
18 know, I had done what I felt was some good work there,  
19 both scientifically and practically, and they were  
20 offering me a position there that was -- paid me about  
21 three times as much as I was getting in the military

1 to stay.

2 MR. FITZGERALD: Sounds pretty tempting.

3 GENERAL PINSON: It was hard to turn down.

4 MR. FITZGERALD: So why did you?

5 GENERAL PINSON: Well, I'm not sorry.

6 (Laughter.)

7 I thought I was needed in the military.

8 MR. FITZGERALD: You thought you could do

9 more good?

10 GENERAL PINSON: I thought I was needed.

11 The guys at Los Alamos asked me that same question.

12 (Laughter.)

13 MR. FITZGERALD: I bet they would.

14 GENERAL PINSON: Why do you stay in the

15 military? And I said, "Well, would you rather be

16 dealing with me in a matter that is of concern to the

17 military and to you than you would with the other

18 people you've been dealing with?"

19 MR. FITZGERALD: And they agreed with your

20 decision?

21 GENERAL PINSON: Well --

1 (Laughter.)

2 But I don't regret it. But the only -- in  
3 the path of life, you know, there are many branches.  
4 And you'll never know what happened if you took  
5 another branch.

6 MR. FITZGERALD: Right.

7 GENERAL PINSON: You know, you went to  
8 college, and where you go to college, it changes your  
9 life. What you do after, you know, you go to college  
10 again changes it. There are lots of branches in the  
11 thing, you know. In your life, in mine, in  
12 everybody's life. You know, the only path that I look  
13 back upon and wonder, gee, I wonder what would have  
14 happened if I had taken that path? Was when I left  
15 Los Alamos.

16 MR. FITZGERALD: That was a big decision?

17 GENERAL PINSON: That was a really -- a  
18 real attraction to stay there because, you know, I was  
19 doing something I loved to do in an environment in  
20 which I could continue to do it, and it was completely  
21 and thoroughly appreciated by the people I worked for.

1           What I liked to do is what they wanted me to do.

2                       I'm not sorry, you know, I chose not to  
3           stay, but I certainly many times have wondered what  
4           would have been my satisfaction if having chosen that  
5           other road? I think I would have been happy with  
6           that, too. But it probably would have been a  
7           different kind of satisfaction than a satisfaction  
8           that came from my contributions to science, I think,  
9           rather than my satisfaction with what I feel by my  
10          contributions to the country's safety.

11                      MR. FITZGERALD: One of the other things  
12          I wanted to ask you is, did you get a chance to read  
13          -- there was a memorandum in there by Secretary of  
14          State Wilson?

15                      GENERAL PINSON: Just going to get to  
16          that.

17                      MR. FITZGERALD: Secretary of Defense  
18          Wilson.

19                      GENERAL PINSON: Well, I'll get to that.  
20          You asked me here about the overexposure to above  
21          3.9R. You asked were they the publicized, and

1 certainly the people that got them knew it. But in  
2 the sense of being publicized in the news media, is  
3 that what you mean?

4 MR. FITZGERALD: Oh, I meant the article  
5 reported that it was 3.9R that the safety --

6 GENERAL PINSON: Yeah.

7 MR. FITZGERALD: -- the overexposure  
8 limit.

9 GENERAL PINSON: Right.

10 MR. FITZGERALD: But in the document that  
11 I showed you earlier, it said that it was 15R. And so  
12 we were trying to make sense of this. Why was the  
13 media reporting that the standard was 3.9R when the  
14 documents that we were reading said that it was 15R?

15 GENERAL PINSON: Well, just a -- I thought  
16 that 15R was applied to the rad. -- to the sampling  
17 people. Is that right?

18 MR. FITZGERALD: I think that was the --

19 GENERAL PINSON: Did you find any  
20 particular group?

21 MR. FITZGERALD: I think it was the -- it

1 was 2.8, which was the early cloud penetrations.

2 GENERAL PINSON: Early cloud penetrations.

3 MR. FITZGERALD: Right.

4 GENERAL PINSON: Oh, yeah. Okay. No, I

5 don't know that there was any publicity associated

6 with that.

7 MR. FITZGERALD: With that standard?

8 GENERAL PINSON: What?

9 MR. FITZGERALD: With the --

10 GENERAL PINSON: With the fact that that

11 was not standard.

12 MR. FITZGERALD: Right.

13 GENERAL PINSON: And I don't think it was

14 ever publicized. The approvals that were granted for

15 the tests in Red Wing by the Surgeon General or who --

16 who approves things like that, you know, I don't know

17 who approves them.

18 MR. FITZGERALD: But they weren't

19 publicized either?

20 GENERAL PINSON: But I don't think it was

21 publicized in the media. I don't think so. And I

1 can't imagine why there was any reason for it -- to do  
2 so. Here is what -- here it is -- if you're going to  
3 ask me about it.

4 MR. FITZGERALD: Yeah.

5 GENERAL PINSON: Let me get that out.

6 MR. FITZGERALD: It's one of the  
7 interesting kind of finds that we've made, that before  
8 people have thought of --

9 GENERAL PINSON: Right.

10 MR. FITZGERALD: -- kind of bioethics as  
11 beginning in the 1960's.

12 GENERAL PINSON: This is dated --

13 MR. FITZGERALD: 1953.

14 GENERAL PINSON: -- (inaudible) 1953.

15 Yeah. But I was not aware of this, but it is a  
16 concept that you note from our conversation that I  
17 would -- that I tried to live by.

18 MR. FITZGERALD: Right.

19 GENERAL PINSON: And what would -- in what  
20 way would it have been -- would I have been different  
21 if I had known about this? And I guess the way in

1       which it would have been different is that I would  
2       have gotten written consent from the people that were  
3       involved in this. And whether -- you know, whether  
4       that would have given me any more assurance that they  
5       were unconcerned about this than I had, I don't think  
6       it would have, but it would have been -- I believe  
7       they would have signed off on it, you know. It's --

8                   MR. FITZGERALD: Left a documentary trail.

9                   GENERAL PINSON: You know is it willing to  
10       do it. But what they had in the back of their mind  
11       about reservation about doing it I -- I probably would  
12       not know.

13                  MR. FITZGERALD: So you think even if they  
14       would have had signed a written consent form they  
15       probably wouldn't have felt that they could express  
16       any reservations that they had?

17                  GENERAL PINSON: They would have been, you  
18       know, just as reluctant to express reservations if I  
19       had asked them to sign, I think, as they were.

20                  MR. FITZGERALD: Right.

21                  GENERAL PINSON: You know, were they

1       reluctant to express any reservations because of fear  
2       of holding it against them in the service or because  
3       -- for any other reason? I don't know. But as far as  
4       I know, that was not true.

5                   MR. FITZGERALD: Right.

6                   GENERAL PINSON: And --

7                   MR. FITZGERALD: But in the off chance  
8       that it was true, they probably -- this probably  
9       wouldn't have helped them.

10                  GENERAL PINSON: My principal assurance of  
11       that was Colonel Furman's who was a commander. But,  
12       at the same time, they might be reluctant to express  
13       to their commander any fear that they might have. ↗

14                  Just like we talked about my not using my  
15       technicians as subjects, you know. But, yes, I did  
16       not know about this, but -- but if I -- you know, if  
17       somebody had said, "Well, in order to approve this  
18       project, this is what we want you to do," I would have  
19       done it.

20                  And I would have been happy to do it  
21       because, as it was, you know, I didn't have any --

1 didn't have any reason to ask these people to sign on  
2 this because I -- when some -- you know, you might --  
3 if somebody asks you to sign it, they might be more  
4 suspicious of your motivation. And if he told you  
5 it's optional and you can do it or not do it, as you  
6 wanted to, and you say, "Well, sign this thing showing  
7 me that --"

8 MR. FITZGERALD: I think, yeah, that it  
9 goes back to the history of consent forms. Sometimes  
10 they're used as kind of legal waivers so that --

11 GENERAL PINSON: That's right.

12 MR. FITZGERALD: -- they -- whoever could  
13 support the experiment as it's let off.

14 GENERAL PINSON: If I sign this, I give up  
15 my right to back out.

16 MR. FITZGERALD: Right.

17 GENERAL PINSON: But to answer the  
18 question, as you said, you know, I did not know about  
19 it. Do I think it should have applied to any of your  
20 research? I would say if it was a policy at that  
21 time, then it should have. And I wouldn't have been

1           hesitant to -- I would not have been hesitant to  
2           attempt to comply with it if I had known about it.

3                       MR. FITZGERALD: Right.

4                       GENERAL PINSON: It would have suited me.

5                       I don't remember that -- you know, what  
6           that briefing is.

7                       MR. FITZGERALD: Could it be somebody  
8           else's?

9                       GENERAL PINSON: It could be mine. It  
10          could be somebody else's. It's not something that I  
11          would have used, I think, in my talk to the pilots in  
12          the Tactical Air Command squadron when I went to  
13          there. You know, I went there I think with  
14          Dr. Houghton, and I think it was a Colonel Ousley  
15          that flew us down there.

16                      And, you know, it's not the sort of thing  
17          that I would have talked -- it's not the way I would  
18          have talked to them I don't think.

19                      There was offered at Sandia Base, this  
20          tri-service base there, in the 1950's, they used to  
21          have a course for military officers periodically.

1 This was I think -- I don't know what length it was.  
2 My impression was it was a week or two -- in which  
3 they tried to tell these military commanders, you  
4 know, what their problems were going to be in  
5 operating in this new environment in which they had  
6 nuclear weapons.

7 And on occasion, I was asked to give the  
8 lecture in that course, and I -- you know, I don't  
9 think that this -- I was -- in those days, I was very  
10 much inclined to speak extemporaneously about things,  
11 and so I don't think these are my notes because I  
12 don't -- in the speeches that I gave, I never wrote  
13 things out in this much detail.

14 MR. FITZGERALD: Right.

15 GENERAL PINSON: And also, when I read  
16 this, there is things -- things are said in here in a  
17 way that I don't think I would say them because they  
18 are -- the statements are too positive for things that  
19 I wasn't very positive about then and now. I would  
20 have felt if I had said the thing this way I would be  
21 misleading people.

1 MR. FITZGERALD: Right.

2 GENERAL PINSON: So I don't think they're  
3 my notes, but I don't know. I can't be sure.

4 MR. FITZGERALD: What statements do you  
5 think are not -- are a little bit too positive?

6 GENERAL PINSON: Oh, I don't know. As I  
7 read it through, I just thought there were some things  
8 that weren't stated very --

9 MR. FITZGERALD: I might be able to find  
10 it in my notebook here. (Looks through papers)

11 GENERAL PINSON: I've got it here  
12 someplace. Prepared by Lieutenant General --  
13 Lieutenant --

14 MR. FITZGERALD: That's --

15 GENERAL PINSON: Is this it?

16 MR. FITZGERALD: No, that's an experiment  
17 they did at Plumbbob where they -- after the debate  
18 between Keiffer and Plank about --

19 GENERAL PINSON: Oh, yeah.

20 MR. FITZGERALD: -- decontamination they  
21 decided to fly the --

1                   GENERAL PINSON: I wasn't involved in  
2                   Plumbbob, and I don't -- I had already left the  
3                   Kirtland and moved over to Sandia by that time.

4                   MR. FITZGERALD: Maybe it's in here.  
5                   Nope, not in this pile. There it is right there.

6                   GENERAL PINSON: Is that it? Let me see  
7                   if I can pick out the things that I thought were  
8                   somewhat amiss of the way I would have stated it.

9                   MR. FITZGERALD: Los Alamos sent us that  
10                  document. They said that they thought it was yours,  
11                  but they weren't positively sure.

12                  GENERAL PINSON: Los Alamos?

13                  MR. FITZGERALD: Yes.

14                  GENERAL PINSON: I wouldn't have written  
15                  this when I was at Los Alamos.

16                  MR. FITZGERALD: They -- no, they just had  
17                  the document somehow. They --

18                  GENERAL PINSON: Oh.

19                  MR. FITZGERALD: -- had collected it with  
20                  other -- other documents they had regarding the manned  
21                  penetration experiments.

1                   GENERAL PINSON:    I don't -- I can't  
2    imagine where this would have come from because I  
3    don't -- I don't -- see, this was apparently written  
4    about 19 -- I was able to judge it here -- '53, I  
5    think.

6                   MR. FITZGERALD:    I think it was after  
7    the Teapot.

8                   GENERAL PINSON:    Upshot Knothole,   no.  
9    This is -- Upshot Knothole is '53. This is -- let's  
10   see, this was written before any of the manned  
11   penetrations, wasn't it?

12                  MR. FITZGERALD:    I think it was after  
13   Teapot and before Red Wing.

14                  GENERAL PINSON:    Oh, okay.

15                  MR. FITZGERALD:    Because it's talking  
16   about Teapot in the past tense.

17                  GENERAL PINSON:    I'm talking about megaton  
18   bomb cloud. That would certainly be an estimate at  
19   that time.

20                  MR. FITZGERALD:    Right.

21                  GENERAL PINSON:    Well, I can't -- I don't

1 know. This may be mine, and I was -- you know, I'm  
2 trying to think, you know, where would I have used  
3 this? And the only thing that I can think of is that  
4 -- where it might have been used is in that -- is in  
5 that course material at Sandia.

6 MR. FITZGERALD: All right.

7 GENERAL PINSON: And --

8 MR. FITZGERALD: Los Alamos thought it  
9 might be a briefing for the pilots at Red Wing.

10 GENERAL PINSON: No, I don't think so.

11 MR. FITZGERALD: Is there anybody else  
12 that might have made the briefing at Red Wing?

13 GENERAL PINSON: No.

14 MR. FITZGERALD: No?

15 GENERAL PINSON: The only briefing of the  
16 pilots at Red Wing took place -- (End Pinson 3, Begin  
17 Pinson 4) -- and this -- you know, this -- it seems to  
18 me that it covers too much material than I would judge  
19 they would be interested in.

20 MR. FITZGERALD: Right.

21 GENERAL PINSON: See, if I'm going to talk

1 to those people about their participation in this  
2 thing, well, then, I'm going to be talking about the  
3 dosages that they're going to get and what we had --

4 MR. FITZGERALD: Right.

5 GENERAL PINSON: -- and here I am talking  
6 about how hazardous is the contaminated aircraft? Is  
7 it safe to touch a contaminated aircraft? Can the  
8 aircraft be rearmed and refueled immediately without  
9 it? Can it be safely -- they could give a damn less  
10 about that you see because, you know, they're going to  
11 be in the Pacific, and the people that are responsible  
12 for this thing are going to be the group -- the flight  
13 test group at Kirtland. They come under their  
14 supervision out there.

15 You know, other than to tell them that the  
16 decontamination of their airplane will be accomplished  
17 by somebody other than themselves, and they don't have  
18 to worry about it, you know --

19 MR. FITZGERALD: Right.

20 GENERAL PINSON: -- it's just not the  
21 thing that I would be talking to them about I think.

1 But -- well, I can't say it's not mine, but I don't  
2 think it is.

3 MR. FITZGERALD: Okay.

4 GENERAL PINSON: But who else would have  
5 been giving it -- I don't know. I think, you know,  
6 that certainly there weren't many people that would be  
7 giving a review like that other than me, so it --  
8 maybe it --

9 MR. FITZGERALD: I'm not sure how we're  
10 going to do that in that final report, because we  
11 wanted to take a couple of quotes out of that. We  
12 were going to attribute to -- maybe it was somebody  
13 who took notes on --

14 GENERAL PINSON: What?

15 MR. FITZGERALD: Maybe somebody  
16 transcribed one of your talks or something like that.

17 GENERAL PINSON: Well, I was trying to  
18 find some of these things that I thought, you know, I  
19 wouldn't have said. But I can't find any of them now.  
20 There were very few of them. I think mostly it's  
21 something that I might very well have said. I can't

1 find it. But I thought there was one or two things  
2 here where I thought that, you know, that I -- that  
3 too positive a statement had been made in keeping with  
4 the knowledge at that time.

5 MR. FITZGERALD: Maybe -- can I read  
6 something? Maybe this will help out. It was talking  
7 about the Upshot Knothole and then the results from  
8 that, and it said, "Such information was important to  
9 be sure that research people are the original doubting  
10 Thomases. We felt that conclusive proof of the safety  
11 of the kiloton neo-bomb cloud penetrations would  
12 require the actual penetrations of such clouds by our  
13 people. And so during Operation Teapot last spring,"  
14 it goes on.

15 GENERAL PINSON: Most certainly, it wasn't  
16 the research people that were the doubting Thomases in  
17 this. That's a mistake.

18 MR. FITZGERALD: It's the SAC.

19 GENERAL PINSON: It's the operational  
20 people.

21 MR. FITZGERALD: Strategic Air Command.

1                   GENERAL PINSON:  Because -- you know, I  
2                   can't -- there are no research people that I know of  
3                   that gave a damn, because this is -- you know, this  
4                   information didn't -- you know, as a negligible  
5                   contribution to research and scientific --  
6                   scientifically, you know, this contributes less than  
7                   I suspect anything I've ever done.  But it -- so its  
8                   only virtue is the practical use of it.

9                   Yeah, that's right.  It's not -- you know,  
10                  I certainly -- yeah, that -- I don't -- there are some  
11                  other things there that I thought were improperly  
12                  stated, and I don't know if I stated them then I was  
13                  a little off base.  I don't think I would ever have  
14                  said that, because it's a complete misstatement of the  
15                  situation.

16                  MR. FITZGERALD:  About who was worried  
17                  about or wanted the information.

18                  GENERAL PINSON:  Yeah, about what are you  
19                  worried about?

20                  MR. FITZGERALD:  The research people  
21                  didn't, but the operational people did.  Right.

1                   But if you --

2                   GENERAL PINSON: I had no reason to do  
3 this, other than to satisfy the operational  
4 requirement to people. This had become a real thing.  
5 You know, there is a -- in the '50's, there was a guy  
6 by the name of Tommy Power, who had been in Strategic  
7 Air Command and, you know, had been one of LeMay's  
8 people. He came to be commander of ARDC. I've  
9 forgotten when it was, but it was in the early or mid  
10 '50's.

11                   And he wanted -- he encouraged the people  
12 in ARDC at that time to try to make their research  
13 applicable to operational requirements, so that -- of  
14 the commands. And, you know, and I felt I had always  
15 done that. But not -- but he encouraged this.

16                   And also, in order to further this, that  
17 we should -- that the research people should take what  
18 we called a SAC tour, and this meant that we went --  
19 we were -- we made ourselves available to go for a  
20 period of a month or so with a SAC organization that  
21 was operating and see if we -- you know, if we could

1 find anything that they needed done that we could do  
2 for them, and I put in for one of those.

3 The assignment that I got was to go with  
4 a refueling squadron on one of their emplacements --  
5 I suppose you'd call it. These refueling squadrons go  
6 out at a base and -- so that they would be in a  
7 position to refuel SAC airplanes as they came by. And  
8 so I went on one of these tours, and it seemed to me  
9 this -- this refueling squadron -- I spent two weeks  
10 with them, and they went up to some area in the north.

11 I think it was up to Newfoundland, but I'm not sure.  
12 It was up in that area.

13 We spent two weeks up there refueling SAC  
14 airplanes as they came by, during which period I was  
15 supposed to be observing, you know, what their  
16 problems were and what I could do to help them solve  
17 those problems. And I didn't see any in this  
18 refueling activity. I didn't identify any problems,  
19 but there certainly was an endeavor on the part of --  
20 of Tommy Power, who came into SAC command, to  
21 encourage the research people to do that.

1                   And I'm not -- the only thing I recall is  
2                   this -- I think this was when I was at Kirtland, and  
3                   so, therefore, it would have been some time during the  
4                   period between 1954 and late 1957, and I think more  
5                   likely earlier than that. That doesn't have anything  
6                   to do with this -- with the activities that I was  
7                   engaged in both before and after that because --  
8                   because the assignment that I got wasn't in relation  
9                   to the weapons delivery.

10                   MR. FITZGERALD: Right.

11                   GENERAL PINSON: But it -- but why do I  
12                   say this? Well, it shows why I was encouraged, I  
13                   think, to be responsive to what strategic air command  
14                   presented as one of their problems.

15                   You see, here is something that turns out  
16                   not to be true, but, you know, whether I thought it  
17                   was true at that time or not. "The hazard presented  
18                   by megaton cloud at early times after detonation is  
19                   far greater than that of a kiloton cloud yield."

20                   MR. FITZGERALD: Which didn't turn out to  
21                   be true.

1                   GENERAL PINSON:  Didn't turn out to be  
2 true.  "Whatever the dimension of the," I'm reading,  
3 "megaton cloud, so very much more will be required --  
4 so very much more time will be required in cloud  
5 passage than in the case of the kiloton cloud that the  
6 radiation exposure will be far greater, as much as ten  
7 times greater."  That isn't true.

8                   But time is certainly a great ally in  
9 those activities.  You know, the decay is -- of the  
10 radiation is so fast during those early times, so it  
11 makes a huge difference whether you do something at  
12 one hour or do it at 30 minutes.

13                   MR. FITZGERALD:  Right.

14                   GENERAL PINSON:  It much easier to do it  
15 -- much less dose.  That decay curve is so steep that,  
16 you know, you are --

17                   MR. FITZGERALD:  I think I've gotten most  
18 of the main questions.

19                   GENERAL PINSON:  What?

20                   MR. FITZGERALD:  I think we've covered  
21 most of the main questions I wanted to ask.

1 I guess a general question, we're trying  
2 to -- and this is a very difficult task that we face.  
3 We're trying to get all of the lessons that we can  
4 from the Cold War and to understand our history and  
5 to, you know, not repeat our mistakes, and try to  
6 relive our successes.

7 And so I was wondering if you, in general,  
8 have any observations on what -- on kind of what  
9 lessons to learn from the -- from the parts of, you  
10 know, the Cold War effort that you were involved in,  
11 what went right and what went wrong, in general.

12 GENERAL PINSON: In the Cold War effort  
13 that I was involved in? Do you mean the -- say that,  
14 again now.

15 MR. FITZGERALD: I mean, in general, just  
16 what -- what more general lessons should we learn from  
17 -- have you learned from your experience with  
18 conducting experiments of bomb tests at --

19 GENERAL PINSON: Well, I don't know that  
20 it has anything to do with the Cold War, but it -- you  
21 know, certainly, as time has gone on there has been,

1 in my lifetime, since I went to graduate school, you  
2 know, there is far more research activity since World  
3 War II than there ever was before World War II.

4 And so, you know, I don't know if that --  
5 whether that would have occurred without World War II  
6 or not, but there was much more money and effort spent  
7 on research after World War II than before. And I  
8 presume that that has led to scientific advances, you  
9 know, in all fields of science, not the least  
10 medicine.

11 But what -- you know, I'm not a -- I don't  
12 have any philosophical ideas about this. I don't know  
13 that -- I'm somewhat less apprehensive now about the  
14 Russians. In some ways, I'm less apprehensive about  
15 the Russian situation now, about the Cold War-related  
16 -- our relationship with Russia.

17 You know, as a result of the changes that  
18 have occurred over there, I'm relieved in some ways to  
19 feel that we're not in so much danger of being  
20 attacked by Russia as we were. But at the same time,  
21 I'm more apprehensive about what's going to happen to

1 all of those nuclear weapons that they have, that the  
2 Russians have.

3 And, you know, will people like Saddam  
4 Hussein and Iran and Khadaffi, will they be able to  
5 get their hands on those weapons and, you know, use  
6 them as a threat against our sort of -- anybody else  
7 in the world.

8 And nobody -- you know, there are so few  
9 people that appreciate how destructive these weapons  
10 can be, and you hear a lot of questions being raised  
11 about whether we should have used them at Hiroshima  
12 and Nagasaki or not, and I wouldn't question -- I  
13 would say as a result of their use at those two  
14 locations, Russia and ourselves had a better idea of  
15 the destructiveness of these things.

16 The general population I don't think has  
17 that. But I'd like to think that the leaders of our  
18 country and the leaders of Russia have that, and that  
19 that knowledge has led to a hesitancy on the part of  
20 Russia to attack us. And so I think, you know, that  
21 has in a way -- the use of those weapons has perhaps

1 made it -- made possible the fact that we haven't had  
2 a war -- you know, a serious world-wide war since  
3 World War II.

4 MR. FITZGERALD: Served as deterrents.

5 GENERAL PINSON: And I don't know that  
6 that's very apropos of the question that you asked, but  
7 I -- you know, I have never doubted but that the use  
8 of those weapons has made us more aware -- made the  
9 Russians and ourselves more aware of their  
10 destructiveness than -- you know, I've seen this at  
11 Enewetok and in Nevada, and these weapons are  
12 certainly awesome. But you don't -- you don't get an  
13 appreciation of what they will do until you read the  
14 statistics of what happened to the people at  
15 Hiroshima, how many people were killed.

16 And when I'm doing this work here, and I'm  
17 thinking that, you know, if this work enables, you  
18 know, one Russian nuclear weapon from being delivered  
19 on some -- on its target, it may save 100,000 lives.

20 MR. FITZGERALD: Right.

21 GENERAL PINSON: And I -- you know, I

1 think about that when I'm doing this and when I'm  
2 telling you, you know, that it's no problem to operate  
3 in this cloud at early times after detonation, because  
4 if by doing that, you know, you bring about just the  
5 failure of one Russian bomber to get through you've  
6 saved just hundreds of thousands of lives.

7 MR. FITZGERALD: Right.

8 GENERAL PINSON: And maybe that's not an  
9 intelligent way of looking at the world, but, you  
10 know, I -- I never felt that the Russians were our  
11 friends. I felt that they were our enemies before  
12 World War II, they were our allies in World War II  
13 only of necessity, and that they have not been our  
14 friends since then. They're not our friends now, I  
15 don't believe. As much as I would wish it, you know,  
16 I don't -- I don't think they're our friends now.

17 But I think they're less capable of being  
18 our enemy than they were in the years between World  
19 War II and when they came apart about five years ago.

20 MR. FITZGERALD: Right.

21 GENERAL PINSON: But I think they still

1 be able to. Historians, I think, are particularly  
2 interested.

3 GENERAL PINSON: Well, I think the -- in  
4 operational requirements -- you know, as expressed by  
5 SAC, were perfectly valid. You might draw the  
6 conclusion that they were planning to expose -- in  
7 wartime to expose their people to high levels of  
8 radiation. I think their plan was to enable -- was to  
9 be sure that they could operate in this nuclear  
10 environment and carry out their mission.

11 And how were they going to be hampered in  
12 doing this? And this was simply an elucidation of  
13 what they could expect was possible. And I think it  
14 would be a mistake, you know, for -- to conclude, you  
15 know, that they didn't care about the welfare of their  
16 people. I think they cared about them very much.

17 And, you know, you can say that the  
18 military was planning to expose their people to high  
19 levels of radiation dose unnecessarily. I think that  
20 -- you know, in a way, that would be true, but it  
21 certainly would be -- would carry a false impression.

1 MR. FITZGERALD: Right. They were  
2 concerned about combat situations.

3 GENERAL PINSON: Right.

4 MR. FITZGERALD: And what they could  
5 reasonably order their pilots to do or air crews to  
6 do. And that was the main concern, main motivation.

7 GENERAL PINSON: And you'd have sympathy  
8 for that desire, you know, if you were in England  
9 during the blitz of World War II.

10 MR. FITZGERALD: Sure.

11 GENERAL PINSON: And the mission that the  
12 RA have had, you know, to try to thwart the German  
13 attack on one --

14 MR. FITZGERALD: If you were in  
15 Zimmerman's position at SAC, and you had been  
16 presented with the data that you had gotten from  
17 Greenhouse and from Upshot Knothole, do you think that  
18 it would be -- would you have asked for the manned  
19 penetrations at Teapot and RedWing? Or would you have  
20 thought that the animal data was sufficient? (pause)  
21 Tough question, isn't it?

1                   GENERAL PINSON: Yeah. I don't know. I  
2 don't know. I just don't know. I can see where I  
3 might have -- and I don't know, you know, from what  
4 source -- you know, what was the source of this view  
5 of SAC. I don't have any reason to believe that it  
6 came from LeMay. I don't know whether it came from  
7 his operation analysis people, or whether it came from  
8 somebody else. But, you know, I think it's not  
9 unreasonable for them to ask for it. And it's not --  
10 it's not possible to think, you know, how seriously  
11 you think about the dosages involved.

12                   And as I've expressed here, you know, I  
13 don't think that the dosages involved in this would  
14 represent a serious radiation dose at all. But that's  
15 just a matter of opinion, you know. You can -- there  
16 are many people who feel that these levels of  
17 radiation dose are extremely serious, to which I'd  
18 say, "Prove it." I can't prove a negative. I can't  
19 prove that they won't hurt you.

20                   But, you know, all of the evidence that I  
21 knew about at that time and that I know about today

1 suggests to me that they're inconsequential. And so  
2 I don't think it was any big thing to -- for them to  
3 ask. But, you know, I don't know that they thought  
4 about that. But I don't think there's any question  
5 but that SAC itself, you know, would have dedicated  
6 its people to these penetrations.

7 But they didn't have the aircraft to do  
8 it. And if you had taken one of their big aircraft,  
9 well, then, you've got a lot of people involved  
10 instead of just a few. The way we did it, you know,  
11 there's only -- it's only necessary to have a pilot  
12 aboard.

13 But I -- I guess I can't say. There's  
14 reason to say, "Well, you should have been satisfied  
15 with the data that had been gathered with the drones."  
16 But, you know, these are hard-nosed, practical people  
17 that -- that put their life on the line and in  
18 military combat, you know, where the hazards are far  
19 greater than in this modest exposure to radiation.

20 MR. FITZGERALD: Right.

21 GENERAL PINSON: And so I don't -- you

1 know, in my view, knowing what I know, I don't see any  
2 reason why they shouldn't. I don't see any -- either  
3 way, I think. But, you know, it's not an overwhelming  
4 choice.

5 But, certainly, this view was supported at  
6 headquarters USAF, it was supported by the Surgeon  
7 General of the Air Force, and to the extent that I was  
8 involved in it and willing to do it, I supported it.  
9 If that's what they need, you know, if I'm a member of  
10 the military service, and this is what I can do for  
11 them, then I owe it to them to do it.

12 That's a long answer with no answer at  
13 all, isn't it?

14 MR. FITZGERALD: No. It's -- I think it  
15 expresses a lot of the difficulties I have when I read  
16 over the documents. I wonder what I would do in  
17 another person's position, I try to put myself in  
18 their shoes. But it's very difficult -- very  
19 difficult to decide because you see both sides of the  
20 coin. You see the people who are complaining now that  
21 they may have been injured by radiation, and you see

1 the need -- the perceived need that people had when  
2 they carried out these activities. And it's very  
3 difficult to imagine making different decisions than  
4 the decisions that were made. It's also difficult to  
5 imagine making the decisions that were made.

6 GENERAL PINSON: Yeah. Like Truman's  
7 decision to drop the bomb.

8 MR. FITZGERALD: Right.

9 GENERAL PINSON: We can argue that pro and  
10 con forever. There are many other decisions of a  
11 similar nature.

12 Well, I -- you know, I didn't find it  
13 difficult to accept SAC's view of this, because, you  
14 know, we -- to my way of thinking, you know, we had  
15 not proved that it was possible. And, you know, their  
16 allegation that we had not proven it until we had done  
17 it I thought was reasonable. So I didn't find it  
18 difficult to comply with their request for more  
19 information. If I had been able to do it without --  
20 no risk to anybody other than myself, I would have  
21 done that.

1                   MR. FITZGERALD: That's one thing, as I  
2                   said, I'm impressed that you were a subject in nearly  
3                   all the experiments that you conducted.

4                   GENERAL PINSON: You know, you don't show  
5                   you believe it unless you do it.

6                   MR. FITZGERALD: Right.

7                   GENERAL PINSON: But I -- you know, I grew  
8                   up on a farm. My dad taught me that. You know, we  
9                   had a lot of hired hands working for us, and minimum  
10                  wage was really minimum in those days. Don't ever ask  
11                  anybody to do any job that you won't -- that you  
12                  wouldn't do yourself. And when it came time to clean  
13                  out the stables, he did it. He didn't ask the hired  
14                  hands to go out there and do the dirty work if he  
15                  didn't -- because he didn't want to do it. I think  
16                  that's a good principle to live by.

17                  MR. FITZGERALD: Yeah.

18                  GENERAL PINSON: You know, you can't tell  
19                  when I did out, you know, whether I believed that it  
20                  was safe or not, so -- but if I send somebody else to  
21                  do it, because I say it's safe, you know, there's a

1 lot more reason to doubt it. So --

2 MR. FITZGERALD: Yeah. That definitely --

3 GENERAL PINSON: But, you know, I have no  
4 reason to do it if I didn't feel that there was an  
5 operational requirement for it. I have no reason to  
6 do it. And, furthermore, you know, nobody will let me  
7 do it that way, too. Nobody would let me have the  
8 airplanes to do it as it grew.

9 MR. FITZGERALD: Well, there was one other  
10 question, and it's actually not on -- somebody else in  
11 the office has a question. I'm not sure you would  
12 know about this. There was a helicopter accident in  
13 1957.

14 GENERAL PINSON: Right.

15 MR. FITZGERALD: Mark Mills was in it.

16 GENERAL PINSON: Right.

17 MR. FITZGERALD: Do you know -- do you  
18 remember any details about that? I'm not familiar  
19 with it myself, but there is somebody else in the  
20 office who wanted to --

21 GENERAL PINSON: Well, it was one of the

1 three times in my life that I came the nearest to  
2 getting killed.

3 MR. FITZGERALD: Oh, really? You were  
4 close -- were you in the helicopter?

5 GENERAL PINSON: Yes.

6 MR. FITZGERALD: Oh, you were in the  
7 helicopter. Oh, okay. Do you remember what happened?

8 GENERAL PINSON: Yeah, I remember. Let's  
9 see if I can get -- I may have the report that I wrote  
10 on that. Can you give me a moment?

11 MR. FITZGERALD: Yeah, sure.

12 MRS. PINSON: How about another Coke?

13 MR. FITZGERALD: Oh, I think I'm fine. I  
14 don't think I've finished this one actually. Still  
15 good though.

16 GENERAL PINSON: How about reading this?  
17 This is a report that I wrote for the -- following  
18 this thing.

19 MR. FITZGERALD: Oh, okay.

20 GENERAL PINSON: Why don't you read that.

21 MR. FITZGERALD: Okay.

1                   GENERAL PINSON: In the meantime, I'll go  
2 to the boy's room again. I'll be right back.

3                   MR. FITZGERALD: Okay.

4                   (Off the record briefly.)

5                   MR. FITZGERALD: Sounds like a very  
6 harrowing experience. These are pictures? Oh, this  
7 is the helicopter after it was pulled up?

8                   GENERAL PINSON: I guess so. I don't know  
9 what those are.

10                  MR. FITZGERALD: Do you remember what the  
11 mission was?

12                  GENERAL PINSON: Yes. It was at Mark  
13 Mills' request, and I was the one that authorized it.  
14 So it would be -- this is the time when I was  
15 Commander of the scientific task group out there, and  
16 this is -- you know, the task force, task force 7,  
17 task force 8, and they had four elements, of which one  
18 was a scientific group. And under scientific task  
19 group came the Los Alamos Labs, the Livermore Labs,  
20 and all of the Department of Defense research  
21 activities out there.

1                   So I -- and I -- the Livermore Labs had a  
2                   weapon that was to be tested the next morning. And --

3                   MR. FITZGERALD:   And which -- this was  
4                   19 --

5                   GENERAL PINSON:   '57.

6                   MR. FITZGERALD:   HARDTACK?

7                   GENERAL PINSON:   Right. And Mark Mills  
8                   had come out there, and because the -- this was a  
9                   Livermore Lab weapon that was to be tested, and he  
10                  wanted -- you know, he insisted on going up and seeing  
11                  it. And I said, "Well, we don't fly helicopters at  
12                  night out here. Can't you wait?" "No," he said, "I  
13                  can't wait until morning. I'm leaving in the morning.  
14                  I've got to go back to the" -- he's the director of  
15                  the lab out there.

16                  And Harry Keller is the man that was in  
17                  charge of the Livermore Lab activities in the Pacific,  
18                  Dr. Harry Keller. He's the other guy that's on there.  
19                  And so I -- I, you know, authorized the trip, and I  
20                  decided, you know, since it was -- this is an unusual  
21                  thing to do that I ought to go along, never

1           anticipating this was going to happen.

2                   MR. FITZGERALD:  The same philosophy, of  
3           don't ask somebody to do --

4                   GENERAL PINSON:  Yeah, but not quite the  
5           same.  But, you know, similar.

6                   MR. FITZGERALD:  Similar.

7                   GENERAL PINSON:  Similar.  And so that's  
8           what happened, you know, so I was -- General Ludeke  
9           who was the task force commander that year wasn't  
10          happy with that either.  But he never did say  
11          anything.  He never did say anything.  It was one of  
12          those decisions that you make.  It doesn't turn out  
13          very well and you wish you hadn't made it.  But if you  
14          if you go back and say, "You know, here's this guy  
15          from Livermore Labs who runs the labs, you know, and  
16          you've got" -- and I know that anybody else that had  
17          been in my position would have done the same thing.

18                   MR. FITZGERALD:  Right.

19                   GENERAL PINSON:  So --

20                   MR. FITZGERALD:  Hard to second-guess him.

21                   GENERAL PINSON:  Right, yeah.  But -- and

1 I still get a card from Harry Keller every now and  
2 then. He is still living. Saying thank you.

3 MR. FITZGERALD: Did you know Mark Mills  
4 well?

5 GENERAL PINSON: I didn't know him well.  
6 I knew him but didn't know him terribly well. I knew  
7 all of the people. I knew Harold Brown and Mark Mills  
8 and -- I hadn't known Keller until I met him out in  
9 the Pacific that year.

10 What were you going to ask me about it  
11 before you read the --

12 MR. FITZGERALD: He -- I hadn't heard  
13 about this. Somebody else who -- had asked me a  
14 question, and he said there was a rumor that the  
15 HARDTACK was going to be canceled before it began, or  
16 something.

17 GENERAL PINSON: I didn't know anything  
18 about that.

19 MR. FITZGERALD: Yeah, I didn't know about  
20 the context --

21 GENERAL PINSON: The tests were remarkably

1 long that year and extensive. They were so extensive  
2 that we ultimately had -- in the early part of the  
3 test, we had both Bikini and Enewetok open, and I was  
4 vice commander of the scientific task group. So they  
5 -- I was over at Bikini as a commander over there.

6 And so then, about mid-summer, we were  
7 aware of the fact that the Test Ban Treaty was being  
8 negotiated with -- and I don't know if it was signed  
9 yet, but it was expected that the test would stop  
10 after that particular one. Therefore, we should --  
11 any of the tests that the laboratory wanted to get  
12 done we ought to get done at that time.

13 As a result of that, many of us, including  
14 myself, were left out in the Pacific with a not very  
15 extensive test schedule from about mid-summer until I  
16 think -- when did I finally get home, October?  
17 Something like that. And we didn't have very much to  
18 do, and the labs would send their devices out, the  
19 ones that they wanted tested, both Los Alamos and  
20 Livermore were doing this.

21 And so we would prepare them and then we'd

1 shoot them. And we'd wait -- usually, when you're out  
2 there, your constraining factor -- the principal  
3 constraining factor in testing is how the weather is.  
4 And we had the capability of testing weapons almost on  
5 three consecutive days. That doesn't happen very --  
6 in testing. One day, the next day, and the next day.  
7 You didn't sleep for a long time, but you, you know,  
8 when the weather is good out there, and the fallout  
9 winds are just right, well, you want to get -- want to  
10 get the tests in.

11 But in this situation here, it was -- you  
12 know, very -- kind of in the doldrums. And so much so  
13 that toward the latter part of the test I think we  
14 were out there for about three weeks without ever --  
15 at the end of it, without ever testing any of them.  
16 And then, they decided that was it. They didn't have  
17 any more to test, and we came home.

18 This is one of the weapons that came out  
19 (End Pinson 4, Begin Pinson 5) -- Mark Mills,  
20 obviously (inaudible) -- I don't know why. I don't  
21 know why, other than the fact that he came from this

1 laboratory. But, you know --

2 MR. FITZGERALD: He might have been  
3 involved in the designing of it or --

4 GENERAL PINSON: That's right. Yeah, he  
5 was probably. But, you know, that wasn't my -- I  
6 didn't feel that was my prerogative to ask him that.

7 MR. FITZGERALD: Right.

8 GENERAL PINSON: So -- but he came out and  
9 he wanted to -- wanted to inspect the device before it  
10 was fired. So -- (End Pinson 5, Begin Pinson 6) -- so  
11 I don't know.

12 MR. FITZGERALD: Could I get a copy of  
13 this, this statement?

14 GENERAL PINSON: Yeah, I suppose so. Do  
15 you want to take that along? If you'll send me a copy  
16 back --

17 MR. FITZGERALD: Send it back, okay.

18 GENERAL PINSON: Would you? Because I  
19 don't have another one.

20 MR. FITZGERALD: Sure.

21 GENERAL PINSON: I'm sure I don't have

1 another copy. I just happened to be going through  
2 some old files recently within -- about a week ago,  
3 and I came across this. And it --

4 MR. FITZGERALD: It sounds like you had  
5 good intuitions and reactions.

6 GENERAL PINSON: What?

7 MR. FITZGERALD: It sounds like you had  
8 good intuitions and reactions when you actually --

9 GENERAL PINSON: He did.

10 MR. FITZGERALD: Yeah.

11 GENERAL PINSON: Yeah. If you don't keep  
12 your head in a situation like that, it can kill you.

13 MR. FITZGERALD: I don't think I ever  
14 would have thought of just relaxing and letting my  
15 body to float up to see whether there was an air  
16 pocket.

17 GENERAL PINSON: Well, I don't know. Who  
18 would think of it? You know, I don't know what -- if  
19 I would ever think of it or not. You can't predict.  
20 It's not possible to predict what you're going to do  
21 in a situation like that.

1 MR. FITZGERALD: Right.

2 GENERAL PINSON: And who would ever have  
3 thought that the door was going to be blocked.

4 MR. FITZGERALD: Right.

5 GENERAL PINSON: It's a surprise.

6 MR. FITZGERALD: Right.

7 GENERAL PINSON: The interesting thing is,  
8 you know, that I -- when I get in a helicopter or an  
9 airplane, I always get in what I think is the safest  
10 seat, especially in the days of piston engine  
11 airplanes, you know. I thought about -- riding in the  
12 back is a lot safer than riding up front. If the  
13 airplane crashes, at that time a lot more people  
14 survived if they were sitting in the back. So I  
15 always rode in the back.

16 So, you know, these two guys, I had them  
17 in the position where I would have been sitting if  
18 they hadn't been there. This is in front of the  
19 bulkhead, you know, with their backs to the front, so  
20 that, you know, in the case of a crash where they've  
21 got this thing -- the only thing is, you know, if I

1 would have been there I would have put my head back.

2 Obviously, what happened to them is they  
3 didn't -- you know, when the -- I don't know if they  
4 had a -- if they were alerted as I was, you know, that  
5 things were not quite like they should be. But if I  
6 had been sitting there, I would have put my head back  
7 and --

8 MR. FITZGERALD: So it wouldn't snap.

9 GENERAL PINSON: -- sort of bracing for  
10 the thing, and they obviously didn't do that. So when  
11 it hit the water, their heads went back and hit that  
12 bulkhead, and I suspect that's what knocked them out.

13 But, you know, if I had just been flying  
14 in the aircraft, in that helicopter alone, I would  
15 have been sitting where they were.

16 MR. FITZGERALD: Right. Okay. Well, I'll  
17 take this, and I'll photocopy it and then send it back  
18 to you.

19 GENERAL PINSON: Okay.

20 MR. FITZGERALD: Well, thank you again.  
21 This has been a wonderful interview. I've learned a

1 lot about the experiments I've been writing on, and a  
2 lot of other things I didn't know I was going to learn  
3 about. It's been very helpful.

4 GENERAL PINSON: What was your query going  
5 to be about Mills?

6 MR. FITZGERALD: Let me see. Here it is.  
7 This is a copy of the E-mail that was sent to me by  
8 Gregg Herken. He's a historian at the Smithsonian,  
9 and he is working with us. He has been busy ever  
10 since this controversy over the Enola Gay exhibit.

11 GENERAL PINSON: Yeah.

12 MR. FITZGERALD: It's the --

13 GENERAL PINSON: What was Mills doing, and  
14 why was he in such a hurry? I have always been  
15 curious why Mills went out to the Atoll that night.  
16 What was Mills doing, and why was he in such a hurry?  
17 He was in such a hurry because he said he had to -- he  
18 was going -- he wanted to leave in the morning and he  
19 had to go up there tonight.

20 And, normally, they don't -- he wouldn't  
21 be able -- he wouldn't be -- normally, all you do is

1 just go over to the helicopter unit and tell them you  
2 want to go and they'll take you up. But --

3 MR. FITZGERALD: But this is at night.

4 GENERAL PINSON: But this is at night, you  
5 see, and they don't do that at night. So they want to  
6 know -- they want to know -- called me up, I'm already  
7 in my quarters, you know, and want to know if, you  
8 know, if I will authorize their taking Mills up. And  
9 I said, "I don't know. I'll come over and talk to  
10 him."

11 So I took a helicopter, went over to the  
12 Atoll where they fly off of, to see what he wanted to  
13 go up there for.

14 MR. FITZGERALD: And so he mainly just  
15 wanted to -- he wanted to inspect the weapon that was  
16 supposed to be detonated the next day?

17 GENERAL PINSON: That's right. He wanted  
18 to inspect their weapon that was going to be fired in  
19 the next -- I don't know if it was the next -- I think  
20 it was not the next day. It was the next day or two.

21 MR. FITZGERALD: Right. But he was going

1 to leave the next morning.

2 GENERAL PINSON: He was going to leave the  
3 next morning. That's why he wanted to go.

4 MR. FITZGERALD: Right.

5 GENERAL PINSON: And Harry Keller was  
6 along with him because Harry Keller was his man who  
7 was in charge of the Livermore Lab activities at --  
8 out at Enewetok, at that operation. So that's why he  
9 was in --

10 MR. FITZGERALD: Okay.

11 GENERAL PINSON: So, let's see, I was  
12 trying to think who were the people that Livermore  
13 Labs had -- that I went to see when I came back from  
14 the Pacific in an endeavor to, you know, get a little  
15 more information on -- on, you know, what he was doing  
16 out there and what his interests were, but I never did  
17 get that.

18 MR. FITZGERALD: Okay.

19 GENERAL PINSON: Well, I --

20 MR. FITZGERALD: Thank you.

21 GENERAL PINSON: -- I would have been more

1           sorry if I hadn't have gone, wouldn't I?

2                   MR. FITZGERALD:   Oh, yeah.

3                   GENERAL PINSON:   I'd be sorry if I had  
4           gotten killed.   You know, considering I said --  
5           considering -- think how I would feel if I had  
6           authorized the flight and stayed at home that night.

7                   MR. FITZGERALD:   Yeah.

8                   GENERAL PINSON:   So I'd feel a lot worse  
9           than I do.

10                  MR. FITZGERALD:   Yeah.

11                  GENERAL PINSON:   I feel bad enough about  
12           it.

13                  MR. FITZGERALD:   But it sounds like you  
14           did everything you could and reacted.

15                  GENERAL PINSON:   We were lucky -- I was  
16           lucky to get out.   We were lucky to get Keller out.  
17           Keller didn't -- I don't know if it said in here, but  
18           he didn't -- he didn't -- he was unconscious until the  
19           next morning.

20                  MR. FITZGERALD:   Oh, really?

21                  GENERAL PINSON:   Yeah, about noon he came

1 to the next day. The people at Livermore that I knew  
2 there told me that they thought the accident had, you  
3 know, affected him somewhat. But I'm not -- I don't  
4 think that's true because he went -- from there, he  
5 went to a professorship at some small college up in  
6 Minnesota and taught for many years. I never had any  
7 close contact with Harry Keller after that, but he  
8 used to send me a Christmas card every year.

9 MR. FITZGERALD: I'm sure he's grateful.  
10 I would be, too, if you pulled me out of a helicopter.

11 MRS. PINSON: He was a big man, too.

12 MR. FITZGERALD: Oh, was he?

13 GENERAL PINSON: Oh, yeah, he was, you  
14 know. I'm amazed that we got him out. Lucky to do it  
15 because it was a real hairy situation.

16 MRS. PINSON: How long was it that you had  
17 to wait before you were picked up?

18 GENERAL PINSON: About four hours I think.

19 MS. PINSON: And you were giving him  
20 artificial respiration?

21 GENERAL PINSON: Well, during a lot of

1 that time but not all of that time. I guess we did.  
2 The tide had receded. The helicopter was upside down,  
3 and the -- after we got out, we were able to -- it was  
4 upside down and under water except for the tip of one  
5 wheel. The wheel was sticking out. When we first  
6 went down, why, the wheel was only sticking out about  
7 that far I would say.

8 Then, as time went on, why, it kept coming  
9 out of the water more, so that -- so we could -- we  
10 could eventually get him up on the wheel and help use  
11 the wheel to kind of support us to keep him out of the  
12 water, and so on. And the helicopter wasn't -- the  
13 body of it wasn't under the water so much, but the --  
14 you know, one of the other guys, when they sat on the  
15 thing, then he could support Keller for a little  
16 while. So we gave him artificial respiration, but I  
17 don't know if that's in there or not. Is it?

18 MR. FITZGERALD: I don't think so. Wow.  
19 Amazing experience.

20 GENERAL PINSON: Well, I hope this is  
21 useful to you.

1 MR. FITZGERALD: Oh, it has been very  
2 useful. Yeah.

3 GENERAL PINSON: I'm --

4 MR. FITZGERALD: I'm sure it will make the  
5 report much more accurate.

6 GENERAL PINSON: What?

7 MR. FITZGERALD: I'm sure it will make the  
8 report much more accurate.

9 GENERAL PINSON: Well, I must confess that  
10 my memory for some of these things is very dim. Some  
11 of them I don't remember. I think some of them that  
12 I do remember, you know, might be skewed a little bit,  
13 not intentionally, but just due to --

14 MR. FITZGERALD: That's just what happens  
15 when memory --

16 GENERAL PINSON: What happens to your  
17 memory. You get -- two people can, you know, be  
18 involved in the same situation and talk about it  
19 afterwards and not remember it the same.

20 MR. FITZGERALD: Right.

21 GENERAL PINSON: You haven't had that

1 experience, have you?

2 MR. FITZGERALD: Yes.

3 (Laughter.)

4 Definitely. Definitely.

5 (Whereupon, the interview was concluded.)

6