

UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF COLUMBIA

COPY

STENOGRAPHIC TRANSCRIPT

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FRIENDS FOR ALL CHILDREN, INC., :
as legal guardian and next friend :
of the named 150 infant individuals, :
et al, :
Plaintiffs, :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544
Defendant and :
Third-Party Plaintiff, :
-vs- :
THE UNITED STATES OF AMERICA, :
Third-Party Defendant. :
----- -x

Arlington, Virginia

Monday, September 28, 1981

Deposition of

CHARLES ALDEN BERRY

Mattingly Reporting, Inc.

COURT REPORTERS

4339 Farm House Lane
Fairfax, Va. 22032

UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF COLUMBIA

COPY

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FRIENDS FOR ALL CHILDREN, INC., :
as legal guardian and next friend :
of the named 150 infant individuals, :
et al,

Plaintiffs, :

-vs-

Civil Action No.
76-0544

LOCKHEED AIRCRAFT CORPORATION,

Defendant and
Third-Party Plaintiff,

-vs-

THE UNITED STATES OF AMERICA,

Third-Party Defendant.

----- -x
CARLY MICHELLE KURTH, et cetera,

Plaintiff,

-vs-

Old
Civil Action No.
76-0544-44

LOCKHEED AIRCRAFT CORPORATION,

Defendant and
Third-Party Plaintiff,

New
Civil Action No.
80-3223

-vs-

THE UNITED STATES OF AMERICA,

Third-Party Defendant.

----- -x

-----x
LORIE CARNIE, et cetera,

Plaintiff,

-vs-

LOCKHEED AIRCRAFT CORPORATION,

Defendant and
Third-Party Plaintiff,

-vs-

THE UNITED STATES OF AMERICA,

Third-Party Defendant.

-----:
JOSEPH FRANCIS CHIONE, et cetera,

Plaintiff,

-vs-

LOCKHEED AIRCRAFT CORPORATION,

Defendant and
Third-Party Plaintiff,

-vs-

THE UNITED STATES OF AMERICA,

Third-Party Defendant.

Old

Civil Action No.
76-0544-41

New

Civil Action No.
80-3222

----- -x

LY DeBOLT, :
Plaintiff, :
: :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-80
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
----- -x
THUY DeBOLT, :
Plaintiff, :
: :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-79
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
----- -x

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MELINDA SUE KELPE, et cetera, :
Plaintiff, :
: :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-70
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
: :
----- -x-----

JEFFREY TIM LINDBERG, et cetera, :
Plaintiff, :
: :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-74
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
: :
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LUKE MEAD, et cetera, :
Plaintiff, :
: :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-60
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
: :
----- -x-----

RACHEL MEAD, et cetera, :
Plaintiff, :
: :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-59
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
: :
----- -x-----

-----x

BENJAMIN LUOM MURRY, et cetera, :
Plaintiff, :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-71
Defendant and :
Third-Party Plaintiff, :
-vs- :
THE UNITED STATES OF AMERICA, :
Third-Party Defendant. :
-----: :
ROGER WILHELM NUSBAUM, et cetera, :
Plaintiff, :
-vs- : Civil Action No.
LOCKHEED AIRCRAFT CORPORATION, : 76-0544-69
Defendant and :
Third-Party Plaintiff, :
-vs- :
THE UNITED STATES OF AMERICA, :
Third-Party Defendant. :
-----x

----- -x
MARK TAN ROTHHAAR, et cetera,

Plaintiff,

-vs-

LOCKHEED AIRCRAFT CORPORATION,

Defendant and
Third-Party Plaintiff,

-vs-

THE UNITED STATES OF AMERICA,

Third-Party Defendant.

TAI LARS STADHEIM, et cetera,

Plaintiff,

-vs-

LOCKHEED AIRCRAFT CORPORATION,

Defendant and
Third-Party Plaintiff,

-vs-

THE UNITED STATES OF AMERICA,

Third-Party Defendant.

Civil Action No.
76-0544-63

Civil Action No.
76-0544-33

----- -x

----- -x-----

STEPHANIE WILKS, et cetera, :
Plaintiff, :
: :
-vs- : Civil Action No.
: 76-0544-52
LOCKHEED AIRCRAFT CORPORATION, :
: :
Defendant and :
Third-Party Plaintiff, :
: :
-vs- :
: :
THE UNITED STATES OF AMERICA, :
: :
Third-Party Defendant. :
: :
----- -x-----

Arlington, Virginia

Monday, September 28, 1981

Deposition of CHARLES ALDEN BERRY, a witness herein,
called for examination by counsel for the Plaintiffs in the
above-entitled actions, pursuant to notice, the witness
being duly sworn by Jerome T. Mattingly, a Notary Public in
and for the Commonwealth of Virginia at Large, at the offices
of Lewis, Wilson, Lewis & Jones, Ltd., 2054 North 14th
Street, Suite 300, Arlington, Virginia, commencing at 11:00
o'clock a.m., the proceedings being taken down by stenotype
by Jerome T. Mattingly and transcribed under his direction.

APPEARANCES:

On behalf of the Plaintiffs:

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Arlington, Virginia 22216

On behalf of the Defendant:

CARROLL E. DUBUC, ESQUIRE
Haight, Gardner, Poor & Havens
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1819 H Street, N.W.
Washington, D.C. 20006

On behalf of the Third-Party Defendant:

JAMES P. PIPER, ESQUIRE
Trial Attorney, Aviation Unit
Torts Branch, Civil Division
U.S. Department of Justice
550 11th Street, Room 906
Washington, D.C. 20530

C O N T E N T S

<u>Deposition of</u>	<u>Examination by Counsel for</u>	
	<u>Plaintiffs</u>	<u>Defendant</u>
Charles Alden Berry	11	-

EXHIBITSFor Identification

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P R O C E E D I N G S

Whereupon,

CHARLES ALDEN BERRY,

a witness herein, was called for examination by counsel for the Plaintiffs, and, having been first duly sworn by the Notary Public, was examined and testified as follows:

EXAMINATION BY COUNSEL FOR PLAINTIFFS

BY MR. LEWIS:

Q. Would you state your full name, please, sir?

A. Charles Alden Berry.

Q. And what is your home address, sir?

A. My home address is [REDACTED]

Q. And for whom do you now work?

A. For myself.

Q. And the National Foundation for the Prevention of Disease is a -- what kind of organization is that?

A. The National Foundation for Prevention of Disease is a non-profit 501(c)(3) non-profit foundation that I am spending about, oh, I would say maybe five to ten percent of my time at most right now, because of the level of activity as far as the Foundation is concerned. It's new, and we're trying to develop that Foundation. I

spend most of my time, it's really spent in consultation and with patients.

Q So 90 to 95 percent of your time is spent in work other than for the National Foundation for the Prevention of Disease?

A That is true as of right now, right.

Q How long has that been true, sir?

A That has been true since we started, when I say that has been true for probably the last two years.

Q All right, sir. I have a document which is called a C.V., Defendant's 1277, which is not dated, and it shows your office address presently as the National Foundation for the Prevention of Disease.

A Yes.

Q How old is this curriculum vitae?

A That's correct, that office is the same office as the Foundation office, and my own personal office are both in the same area, the same suite.

Q Do you use the same telephone number?

A Correct.

Q Who organized the National Foundation for the Prevention of Disease?

A I did.

Q Personally?

A Personally.

Q And does it pay you a salary?

A It does not, because we haven't had enough money in there to do that yet.

Q I understand. The idea is that it would pay you a salary if enough funds could be raised?

A If we have enough funds and I am putting adequate amount of time in, we will eventually, hopefully I can put more time into the Foundation and less into the consulting.

Q All right. And when you say consulting, I notice in your C.V. there are a number of organizations that you say that you consult for. Is this a representative list?

A Yes. I haven't looked at that in the last -- let me take a look. I assume it is, it better be.

Q Well, there is an item on page 17 which reads consultant and advisory committees.

A Yes, for instance, the Memorial Hospital System and the Garvey Center for Improvement of Human Functioning are two groups I am spending -- they occupy the bulk of my consulting time at the present time. That is every single month, I spend an average of three days a month, sometimes

four, with the Garvey Center; and I am spending a minimum of one day a week with the Memorial System.

Q All right. Now, when you were in the service up until when?

A I was in the Air Force until 1963.

Q And did you work for the government after that?

A After that, yes, sir.

Q And when did you leave the government?

A I left the government in 1974.

Q What was your grade level with the government?

A I was in the excepted position of the NASA Administrator, Jim Webb. At the time NASA was formed, they gave us excepted positions outside of the Civil Service, so I was in that group of people that were at the time I had the salary of \$36,000.00, so I was tagged at that level.

Q So you were at a so-called excepted position from Civil Service and your salary was \$36,000.00?

A That was the peak established by Congress.

Q It stayed at \$36,000.00 until you left; is that correct?

A That was my last.

Q When did you leave, sir?

A I left in '74.

Q When?

A Excuse me. I left, it was March of 1974.

Q And so you were with the government from 1963 when you left the Air Force, until March of 1974; is that correct?

A Correct.

Q And you were in what is called the excepted position at the salary of \$36,000.00 throughout that period?

A Well, we didn't start at \$36,000.00, because when I was first starting in that position, I was not, you know, I went to the NASA position and set up the operational medical, so I was doing the medical operations job. So that was not at the peak salary.

Q What was it?

A I don't even remember.

Q Was it an excepted position?

A It still was an excepted position, correct.

Q Did they have ranks?

A Yes, they did steps just the same as GS18.

Q What was the step in the excepted position that you started in, and ended up at?

A Oh, lord, that was a long time ago. I don't even know the numbers of the steps. I couldn't tell you that, but I started out, I started out at something like a third step; I think I ended up in the --

Q Third from the bottom?

A Third from the bottom, and I ended up over that period of several years there in the 50s, and that topped out at that salary where they couldn't do anything more.

Q Was that the highest step?

A Yes, and I don't know the number of that. I think it may have been nine, but I am not positive about that.

Q Were there other persons in NASA making more than \$36,000.00 in 1974?

A I don't think that anyone could except -- well, I am sure that the Administrator, that was a different type of an appointment. The Administrator of NASA, the Administrator and Deputy were political appointees, had a higher salary, but other than that, there were no other higher salaries.

Q Now, on this page 17, does this cover all of the people or organizations that you worked for as a consultant

since you left the Air Force, or excuse me, since you left the government service?

A. Since I left the government service.

Q. In 1974.

A. Well, I have done one other -- I did one other aircraft helicopter accident case in California a couple of years ago, and that is the only other.

Q. Who was that for?

A. It was for Tucker and Connington. Bill Tucker was the guy that was really the lawyer for it.

Q. Bill Tucker?

A. Bill Tucker.

Q. And what was the client's name?

A. It was Southern California Edison Company.

Q. Mr. Tucker represented Southern California Edison?

A. Correct.

Q. And your work was for the defendant then?

A. Correct.

Q. Have you worked on any accident case or cases since March of '74, except for this one?

A. I had one meeting.

Q. Speaking of the aircraft, the helicopter case that

you mentioned.

A You say other than that, yes, I have had one meeting with some lawyers from United Aviation and General Dynamics about an F-11 accident that happened in England. We have had one meeting in Fort Worth about that accident.

Q And you understood that was for the defendant?

A That is for the defendant.

Q Yes.

A That is correct.

Q Not for the injured person?

A That is correct.

Q Other than what you -- these other things that we have mentioned, have you had any other consulting clients except those mentioned on page 17?

A I did a thing for the Health Insurance Association of America this past year as a consultant. I wrote a book for them, which was published, and it is now being put out around all over the country. We had a national press conference on that, and it was on the Today Show back in July, August rather, and August 3rd, the week of August 3rd.

Q The topic of that was?

A That is healthy employees can reduce health care costs, and it's directed to employers and how they can

reduce health care costs by recognizing disease risk in their employees, and implementing programs to reduce those risks.

Q Anything else? They paid you to write this book?

A Yes.

Q Among other things, they were interested in increasing their own profit?

A Well, that is very interesting. We have been working with the insurance company for some time. I feel strongly that people ought to do something. I have been doing prevention, that is my whole area.

Q Believe me, I am not opposed to prevention. I am trying to find out whether the Health Insurance Association, their motivation was to increase their profit.

A Well, I think what their motivation was is it would -- in essence, it would help their profits. However, most of their contracts are cost-plus contracts. They don't care what the cost of health care insurance today, and I think that that is a sorry -- they do have cost-plus contracts. They don't do that much to help their cost if we have healthy people. And interestingly enough, life insurance companies, on the other hand, if we talk to them,

they say well, if it's true, we would save money if people live longer, we also have a lot of people out in annuities, maybe we better look at both sides of that. We have been talking about this to the life insurance companies for over two years now on an advisory basis, health education, trying to convince them they ought to do something in this area.

Q. They really don't want --

A. They are sure dragging their feet, that is right. I think we made some headway. If they put out this book, I think that is a big step in the right direction. I think we made a first anyway.

Q. You list Air France as one of your consultants?

A. Yes. I have been far, oh, golly, it started in '71. I was asked to be a consultant for Air France here in the United States. I actually was called to Paris, and I was with NASA at that time, and as you know, so I was or became President of the International Academy of Aviation and Space Medicine and the current President who just went out is the medical director of Air France now, and has been in the Executive Secretary at one time. And so there was a lot of tie to the Academy. How all that got started, we discussed this, and as a matter of fact, in France a week

ago, and that is being reviewed with the way things are going on with airlines today, that is being reviewed. And they would like to continue that, and whether they will continue it or not, I don't know.

Q You mean the relationship?

A There is no remuneration on a continuing basis for that at all.

Q You had been paid money by Air France in the past?

A Only in the form of airline tickets to go to -- to use the airline. I have been paid no cash money by Air France.

Q You are interested in having Air France as a consultant client, aren't you?

A Yes.

Q Definitely.

A Definitely.

Q Now, did you meet Mr. Dubuc through Air France?

A No, I did not.

Q You know he represents Air France?

A I didn't know that until just a week ago, as a matter of fact.

Q But he did tell you he represents Air France?

A Yes, he did. I found that out when I was going on

this trip.

Q Going on which trip?

A When I went on this trip, I was just in France for this International Conference of Aviation and Space Medicine.

Q Was Mr. Dubuc there?

A No.

Q I thought you said when I went on this trip with him?

A When I was getting ready to go on this trip, that's when I found out, and telling Carroll about that trip, that I was going to have to be out of the country for that, he said he was with Air France.

Q How long have you known Mr. Dubuc?

A Since July of this year.

Q When did you — when were you first asked to consult in connection with this case, the case involving the children?

A The first time I was asked to consult was in July, and I had — I came up here and had a meeting in Mr. Dubuc's office in July with Mr. Dubuc, and with Mr. John Connors.

Q That is another attorney in Mr. Dubuc's office?

A. Right. And I had been called about, I don't remember the exact time for sure, but something, maybe a year and a half or two years ago. I received a phone call from someone, and I honestly do not remember exactly who that was. I think it was someone from United Aviation. I received a phone call on a Saturday morning.

Q. Is this United Aviation, is that on the record?

A. I think so.

MR. DUBUC: Note my objection. Go ahead and tell him.

THE WITNESS: And I was just asked, I was told there was a case involving the C5A aircraft, and would I, you know, did I know anything about this. I said I did not know anything about it. Would I be willing to talk with them about it, and I said well, I would like to hear something about it. If you want to get some information to me, fine. I never heard anything more.

The next thing I heard was in July, when I was either called from the office here by Aidan Jones, actually is the guy that called me.

BY MR. LEWIS:

Q. Did you work with United Aviation before you got the phone call?

A No, I had not.

Q Do you know who recommended you for this case?

A I do not.

Q Now, what did you bring, did you bring any of the documents with you that you reviewed?

A I have some here that I reviewed. I have a list here that I just tried to jot down about the kinds of things that I have reviewed.

MR. LEWIS: Would you mark this, Mr. Reporter, as Berry Exhibit Number One for identification?

(The document referred to was marked as Berry Deposition Exhibit No. 1 for identification.)

MR. DUBUC: Will you let us copy this?

MR. LEWIS: At the recess?

THE WITNESS: I don't even have a copy.

MR. DUBUC: If you're going to go through it, it might save some time if we had copies now.

MR. LEWIS: Fine. Off the record.

(Discussion off the record.)

MR. LEWIS: On the record.

BY MR. LEWIS:

Q Sir, we marked the list that you just handed me as Berry Exhibit Number One for identification. Would you tell me what this is, please?

A This is a list of documents that have been sent to me from Mr. Dubuc's office, and includes both statements and testimony, and a number of things that -- well, that list, I think is fairly self-explanatory. It's the kind of things that are there.

Q Well, let me ask you some questions about it, just to make sure.

When did you make up this list?

A When did I write this list?

Q Yes.

A Early this morning.

Q And was it at the suggestion of one of the attorneys for the Lockheed Aircraft Corporation?

A It was at the suggestion of Mr. Dubuc that it would be -- I think I had been trying to list them before I came in Houston I had stuff stacked all over, and I had tried to figure out how I was -- what I ought to take and what I shouldn't take. I decided I wasn't going to bring all that material, so one of the questions I asked them,

what about all of these things.

Q. What did anybody tell you to bring, any material?

A. To bring any material?

Q. Yes.

A. No, they said that they thought all of the material was here; bring anything that I thought I needed other than that.

Q. Did you make any notes on these?

A. On which?

Q. On any of these things that you had.

A. On these things?

Q. Or any others.

A. No, what most of these things are, I have taken -- I have a red pencil, and I mark or make a note out to the side of things.

Q. So you did make some marks, some notes on them?

A. Yes.

Q. Do you have those?

A. No, I do not.

MR. LEWIS: Could we have those, Mr. Dubuc?

MR. DUBUC: He doesn't have them. Let's go with the notes.

There is no subpoena.

THE WITNESS: What I have done is underlined
put a question mark. I have underlined or put a question
mark out here or something like that.

BY MR. LEWIS:

Q You want to adjourn now and get it?

MR. DUBUC: No.

BY MR. LEWIS:

Q Where is it?

A Houston.

Q They told you not to bring it?

A Nobody told me; they said you do not need to bring it. The thing I was concerned with, was if I needed to refer to a document or something, would it be available here, and they said they would have the documents available for me.

Q Did anybody tell you to bring any notes that you had?

MR. DUBUC: He already testified about that.

BY MR. LEWIS:

Q Did anybody tell you to bring any notes or all things that you made notes on, and so forth, any documents or any other notes that you had?

A No.

MR. LEWIS: I think that we can read the notice, Mr. Dubuc; it calls for that.

MR. DUBUC: He already testified that he was told to bring whatever he needed. If he needed to refer to something, that is in the record. If he needs to refer to something, it would be here. You want to ask him if he needs anything?

MR. LEWIS: It's a continuing problem, Mr. Dubuc. We have consistently in our notices stated, and I will get the notice if there is any questions about it.

MR. DUBUC: He just testified he hasn't any notes. He has underlinings in exhibits which are here.

MR. LEWIS: You don't mean to say that what he clearly said, he made notes in the margin, and I will ask the court reporter to read it back if necessary.

MR. DUBUC: And read the question before that when he was told to bring anything he needed.

MR. LEWIS: Would you read all of the way back?

BY MR. LEWIS:

Q Before we do that, you did make notes in the margin, didn't you?

A What I did, when I underlined something in here, I would put a question mark out here, or I would say

question, or I would say doubt, or true, or something like that.

Q. So those were clearly notes?

A. There may be a word there.

MR. LEWIS: So that was called for, Mr. Dubuc.

MR. DUBUC: Well, Doctor, do you need those notes in the margin to testify as to the scope of your testimony?

THE WITNESS: I would just say that every time I read anything I do that. Whenever I read a book, I do that. I underline and I am an underliner. I am sorry.

MR. LEWIS: I needed to cross-examine him, Mr. Dubuc.

MR. DUBUC: Of course you don't need it to; if he needs to look at a note he doesn't have, we will try to get the notes. I suggest we go on with this. He says he doesn't need the underlined portions to testify.

MR. LEWIS: I need to cross-examine, and if the notes were made during the course of his review of the materials and what have you, it indicates opinions and so forth, I need it.

MR. DUBUC: You have his opinion in writing.

MR. LEWIS: Well, I am afraid the witness is going

to have to return.

MR. DUBUC: I will not bring him back for that.

MR. LEWIS: Then let's stop right now. If he made notes and they are the type that we have asked, I am going to put the issue to the Court right now.

MR. DUBUC: I suggest he is here from Houston, and you either continue or you waive your right to examine him.

THE WITNESS: There is certainly nothing in those notes that I am not going to tell you about, the opinion or anything you want to ask. I mean, there is nothing I am trying to hide.

MR. LEWIS: Well, we will go until 2:00 o'clock, and we will take it up with the Court at that time.

MR. DUBUC: We will take it up at 2:00 o'clock if we're going to be there. We're going to be there anyway. We will take Dr. Berry down there with us and have him tell the Court about it.

MR. LEWIS: Fine.

MR. DUBUC: If we're there at 2:00 o'clock, we will do that.

MR. LEWIS: Good.

BY MR. LEWIS:

Q Just so we're really clear, Dr. Berry, did you read carefully all of the testimony of the persons stated in category one here?

A I have, when you say read carefully, I have been through all this testimony. It's a mountain of testimony, as you well know, and I have tried to get through that and be aware of pertinent parts of all that testimony. To say that I have . . . absolutely read extremely carefully every single thing in here, I would say no. As a matter of fact, I can tell you for sure the material, the last that I got, because of the schedules and things, material sent down, the last documents, the teachers' depositions, there is a stack of material that came late, and I have not read all of that material.

Q All right. Let's start off, I am talking about in this category one, sir, you have 17 items on here. And I am just trying to understand.

A Okay.

Q I am just going to go over them one by one.

A I am sorry?

Q Category one is statement or testimony of, and it lists a number of people.

A Right.

Q And what I want to know, did you study carefully all of that material?

A I have been through that material, yes.

Q I want to call your attention to my precise words, did you study carefully all of this material?

MR. DUBUC: Are you discussing his definitions or your definitions of carefully?

MR. LEWIS: I am trying to understand.

THE WITNESS: I read carefully, I studied it carefully.

BY MR. LEWIS:

Q I won't make a distinction, read or study carefully.

A Read or study carefully, yes, I have read or studied carefully all of those.

Q And by just read, I am speaking of read carefully or study carefully.

A Yes.

Q Now, when did you get the testimony of Ly DeBolt?

A Yesterday.

Q Yesterday. After you wrote this opinion?

A Correct.

Q When did you write the opinion that is Exhibit D1300?

A The date that is on there, it was done.

Q Is it dated? My copy isn't. Maybe it is. I just don't notice it. Show me where it is.

A That is interesting. Why in the hell isn't it?

Q I don't know.

A Let me tell you what happened to this. This one, I really did not know there is not a date on it. This was done while I was overseas in France at this meeting, and France, in the meeting of the International Conference of Space Medicine, and I had to use a French girl as a secretary to type it. And I had, as you can tell, there are some errors in there still, but I had to do every word of that, I spent one whole day doing nothing but watching over her shoulder to get her to do that, and get that out. So I can tell you the date. Somebody have a calendar?

Q Yes, we have a calendar.

A I would like to look at a calendar. I can look at the date.

Q So do you have one, Mr. Dubuc?

MR. DUBUC: What month are we talking about?

THE WITNESS: September, September-October. The

date that we did that would have been -- it was September the 9th.

BY MR. LEWIS:

Q 1981?

A Right, Wednesday, September 9th, 1981, correct.

Q And so that was the date typed; is that correct?

A That is correct.

Q And is it your testimony that she forgot to put the date or you did?

A Well, I obviously did. This is the first I noticed that it wasn't dated. When I checked it, I obviously didn't catch that. She didn't put the date. The date is on it. In fact, somewhere I have the hand-written stuff, so I could show you.

Q I am not disputing the date, I just didn't know the date.

A I am sorry.

Q When did you furnish this to Mr. Dubuc?

A It was sent back by pouch from Paris.

Q By which pouch, Air France?

A I came on an Air France, I guess I don't know.

Q Who made the arrangements?

A An Air France, I am not sure it was their pouch or

not. Mr. Dubuc's office in Paris made those arrangements for me to get the thing back to him in time. So it really came back by pouch. I got it to Paris and it came back.

Q And so do you know when Mr. Dubuc got it?

A No, I am not sure when he did get it.

Q So the multiple method I am using to get it, meaning this document, to you in Washington, for me was from Air France, it was in an Air France pouch?

A They had to send a courier who came down, because I was chairing a session, and I could not leave there. A courier came down and —

Q An Air France courier?

A No, it was not. It was someone from the law office there.

Q Someone from the Haight Gardner law office?

A Yes.

Q In France?

A They came and picked up the document and took it back to Paris, and it was put in a pouch and sent. I also sent it by telex at that same time, so I know that he got it at least by a telex within that period of time.

Q So what did you have with you when you wrote this opinion? Give me all of the items.

A On that list.

Q They are on this list?

A Now that is the two file cabinets or there is no
way I could do it.

Q I am just asking.

A No. I had the diagram of the altitude time history of it for the aircraft, and I had the diagram of the actual crash site, and I had some of the statements of Mr. Edwards.

Let me think what else.

Q Statements of Mr. Edwards, what do you mean? Where is that on this list?

A Well, not the expert report. This was some calculations, so it's in this first part up here, statements of testimony of Edwards -- there are several things in there. Some actual statements of people and some calculations and things that were done by Mr. Edwards. I did not take any of the bulky, you know, testimony or material.

Q So the only thing that you had on the list from the items from 1 to 17 was some calculations of Mr. Edwards and a diagram?

A I think -- Oh, golly, let's see what else I had.

I had that diagram. I don't remember if I had -- I made a -- I had made, because I was trying to get this done prior to the time I left. I had to leave the country and I got very pushed trying to do that. Therefore, I had done an outline of the things that I wanted to have

in here, so I had my outline which I was working with to fill -- to write each of these sections. And so I had the outline.

Q That is in Houston?

A Yes. I don't know if that is still even there. It was sketchy stuff. It's all in here. Anything that is there, is here. I used this as a basis to do this with.

Q My question on the table, sir, is what you had in France.

A Right. I had some -- an outline to do this, an outline of the things, of the facts to do this particular thing with and those particular charts because I wanted the particular times and things.

Q Did the outline show -- and I don't mean to interrupt you. Are you finished?

A I am finished.

Q Did the outline show the data that you used in each of the sections?

A These times and things were, of course, taken off. I had to do the time altitude curves and I had the time altitude curve with me separately.

Q Did the calculations that you refer to, are those mathematical calculations?

A There were some calculations of the G-forces,
what we felt the G-forces were.

Q Average G-forces?

A Correct, right.

Q And so that part of your report is from Edwards;
right?

A It's from what?

Q Edwards.

A Yes.

Q Believe me, sir, I am not in any way criticizing
you. I am just trying to understand what data went into
your report, what you considered and what your calculations
were and what somebody else's were.

A Correct.

Q And so that is why I am simply being picky.
Your report doesn't say -- I am not saying that it should
or shouldn't, but it doesn't. I am trying to separate the
categories. You didn't have any of the testimony. What
testimony had you read at that point?

A I have been through those. The only one that
is in that list up there that I have seen since that time
would be Wise and DeBolt.

Q And Malone?

A I think I had Malone before that.

Q So Wise and DeBolt?

A I think were the only ones that I had.

Q Were new; is that correct?

A That I had not seen at that time.

Q Do you have all of your materials that were furnished to you by the Lockheed Aircraft Corporation in an area where it's available to you?

A Uh-huh. As a matter of fact, they're scattered all over a conference room in Houston.

Q At your office in Houston?

A Correct.

Q Do you personally pay the rent of the office there?

A I do.

Q And it's not paid by the Foundation?

A It is not because we have been trying to not take any funds out of the Foundation until we have -- We have used that only for some educational programs so far.

Q So then you had read carefully all of the material except Wise and DeBolt?

A Uh-huh.

Q By on or before September 9; correct?

A Correct.

Q And you have in Item 2, Accident Narrative Summary, United States Air Force. You read that; correct?

A Right.

Q And then what is Item 7?

A There was a group -- we were trying to look at the number of people that had been exposed in ordinary physiological training courses within the Air Force, the various types of chamber flights that are used for physiological training in the Air Force. So we asked the Air Force for that information, how many, what the numbers were.

Q You asked the Air Force for that?

A Uh-huh.

MR. LEWIS: May I have that, Mr. Dubuc?

MR. DUBUC: We will see if we can get it. That is in Houston.

THE WITNESS: We can get it.

BY MR. LEWIS:

Q Do you have that in Houston?

A Right.

Q That was part of the material for your report.

A We have that. There are some papers and literature that you add that exposure to.

Q This is the data that you got from the Air Force about chamber people exposures?

A Number of people who were exposed at various times.

Q That was the material part of the consideration in your report?

A Well, that particular piece which was only for 1980 was not part of that because I had not received it at that time. I talked with the Air Force about it but I had not received the particular paper. It was in the sense that I talked to the Air Force about it.

Q You were aware of what they told you?

A Correct.

MR. DUBUC: That wasn't part of what you considered when you wrote your report.

BY MR. LEWIS:

Q The data wasn't because you didn't have the paper.

A No, I did not have it at the time.

Q You had it at the time you knew you were coming here?

A Pardon?

Q You had it at the time you knew you were coming

here?

A Yes.

Q And the information you learned about that did play a part in the conclusion that you reached; is that correct?

A Because I had already -- as I have already said, I had a good deal of experience with that physiological training program and knowing the number of people exposed and I think I made a statement in here to the effect that there are large numbers of people that have been exposed within the Air Force to these altitudes and that is just confirmatory evidence of that fact.

Q That point played a part in your conclusion; is that right?

A (Affirmative gesture)

Q You will have to answer orally yes or no.

A Which point?

Q The fact that the information from the chamber exposure, the Air Force chamber exposure.

A Yes, the fact that there were large numbers of people, and what I wanted was to check on the numbers that had been done recently and I got that number and so did add that to the information.

Q Now you say Gibbons' letter to Dubuc. What is that?

A There was a letter to Mr. Dubuc, and I can't tell you the date or anything on that. It was a letter in which he reported his views based upon some material that he had seen and it was related to one of the other trials. I don't remember which one. It involved some of the children. It talked about a couple of the children.

MR. LEWIS: May I have that?

MR. DUBUC: You have that.

MR. LEWIS: Maybe I do. It's hard for me to say whether I have it or not until I see what we're talking about.

MR. DUBUC: Dr. Gibbons' reports have been submitted and marked as exhibits.

MR. LEWIS: There is a separate category for Dr. Gibbons, Mr. Dubuc, under Category 9.

THE WITNESS: That is the one done for this right now, you mean. Those are new; all the ones under 9 are brand new reports just as my report is.

MR. DUBUC: The previous ones are the ones previously --

MR. LEWIS: Mr. Dubuc, I would just like to

make sure.

MR. DUBUC: You have got them. They have all been produced.

MR. LEWIS: Just satisfy me and we won't have any problems.

BY MR. LEWIS:

Q Could you tell me the date of it?

A I can't tell you the date of it. I don't remember it. I don't think it's in there.

MR. DUBUC: Will you see?

THE WITNESS: I don't think I put that in there.

MR. DUBUC: In there?

MR. LEWIS: In the folder he's got.

MR. DUBUC: That is my folder.

THE WITNESS: That is my folder; you have got my folder, and I know it is in there.

MR. DUBUC: All right.

THE WITNESS: These are the current reports that I have there.

MR. DUBUC: I will check it and see. I will give you the date, Mr. Lewis.

MR. LEWIS: May I see your folder, please?

MR. DUBUC: You want to see his folder?

MR. LEWIS: Yes.

MR. DUBUC: Let me ask you, are these the notes that you were talking about a few minutes ago?

THE WITNESS: Which is that?

MR. DUBUC: These notes.

THE WITNESS: These are some notes from these reports. These are notes on those reports.

MR. DUBUC: All right.

Let the record reflect that Dr. Berry did bring some notes and things with him.

THE WITNESS: Those are things that I just made notations out of, the reports that are there.

BY MR. LEWIS:

Q The trial exhibits that you have mentioned in Exhibit No. 1 under Item A, are they the ones that are in this folder here, sir?

A I think so. I think all of them are in there by numbers.

Q I understand.

Can I compare the numbers?

MR. DUBUC: Is that Dr. Gibbons'? That's dated February of '80?

THE WITNESS: That's it.

MR. DUBUC: February 1980. You already have that.

MR. LEWIS: All right. Let me look at it.

MR. DUBUC: Let the record reflect that Dr. Gibbons' report was previously marked and submitted as an exhibit in at least two or three prior trials.

MR. LEWIS: I don't purport to remember all of these exhibits by number.

MR. DUBUC: Dr. Gibbons' report of February 2, 1980. Would you mark that, please, since it's been identified as Dr. Berry's exhibit?

MR. LEWIS: That would be Berry 2.

(Document referred to was marked Berry Deposition Exhibit No. 2 for Identification)

MR. DUBUC: I would appreciate it if we can keep those separate rather than getting them in something else.

MR. LEWIS: The only things in front of me are these things that are my notes.

MR. DUBUC: There are some folders over there. I want to be sure that Dr. Berry's stuff gets back to him.

MR. LEWIS: This is not Dr. Berry's.

BY MR. LEWIS:

Q Sir, I have reviewed the material that you brought here, and what I would like you to do, if you would, is to read into the record the items, if they have an exhibit number, as many of them that do, what they are.

MR. DUBUC: You're handing back to him his file. You still have the notes in front of you.

MR. LEWIS: I am going to deal with those separately.

THE WITNESS: Okay.

This is Defendants' Exhibit No. D-1302.

MR. DUBUC: Dr. Gaume's report.

That's dated August 31, 1981.

THE WITNESS: And these are the trial exhibits numbered D-1211 to 1215, D-1227 to 1232, D-1245, D-1307, D-1308.

This is Exhibit D-1223 and it's Dr. McMeekin's chamber run; and D-1224 is the same. 1222, 1223 and 1224 are all McMeekins' chamber runs, and D-1218 and 1219 are these chamber runs by Dr. Gaume.

D-1217, 1216, 1210, D-9, D-8, and D-4 are all -- well, they're aircraft drawings and wreckage diagram drawings.

BY MR. LEWIS:

Q And there's more of D-1225 and 1226, some more of McMeekins'. This ought to be McMeekins' chamber run.

A 1246 is an amusement ride analysis; D-1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254 are photos of the wreckage. 1266 -- this is the descent. This is an oxygen saturation over -- I don't know.

Q Does it have a number?

A D-1266, an oxygen saturation curve.

D-1304, this is the Davis expert report.

MR. LEWIS: Excuse me.

Off the record.

(Discussion off the record)

MR. LEWIS: Back on the record.

BY MR. LEWIS:

Q Would you please continue.

A D-16-1 is the Gibbons report, Dr. Gibbons' report. D-1303 is the Turnbow, Dr. Turnbow report; and D-1298 is Mr. Edwards' report.

Q Other than your personal notes, that is the contents of that?

A Correct.

Q The accordian folder. Is that correct?

A Correct.

Q I have asked my people to photostat your other notes that you have, and I am going to wait on that and take up some other subjects in the interim if that is convenient with counsel.

MR. DUBUC: Why don't we take a break.

(Recess)

MR. DUBUC: Are we going to mark the exhibits and give him his originals back?

MR. LEWIS: What I propose to do, just for --

MR. DUBUC: Mark the copies and give the originals back.

MR. LEWIS: I need the originals and the copies to make sure I am on stream.

What I propose to do is to call this Berry Exhibit A, and then I will do it 1, 2, 3, 4, if that is agreeable.

MR. DUBUC: Why don't you call it Berry Exhibit 3-A, B, C?

MR. LEWIS: Berry Exhibit 3-A, B, and C. I will agree to that. Then I am going to just put 3-A, B, and C on the originals if that is agreeable with you.

THE WITNESS: Yes.

MR. LEWIS: So the Court Reporter can wait till we take a break and then he can put the rest of his markings on there.

BY MR. LEWIS:

Q Now, I am going to start with the legal pad cover, which will be 3-A.

MR. DUBUC: 3-A.

BY MR. LEWIS:

Q 3-A.

The next page is a page which starts on the upper left-hand corner, "Ten days" and so forth; that will be 3-B.

The next page is a page that in the upper left-hand corner has a five and some kind of a symbol. It looks like 23.4, and that will be 3-C.

The next page is a page that starts at the top with the word "Gibbons" and a little mark, and that will be 3-D.

Now, there is somewhat of a problem because the bottom of the original is written in red ink and it doesn't copy as well; red ink usually does not. The next one which starts with the word "Edwards" will be 3-E.

The next page -- I can't read it. It has only

one line. 3-F.

The next page -- that is all that is in the original yellow pad.

Then we start with the next sheet, Rapid Decompression, and that will be 3-G.

The next page which starts -- it looks like Decompression Sickness, will be 3-H.

The next one where it starts off with the word "cranial sutures" will be 3-I, and the next one will be 3-J, which is headed by DeBolt.

That is all of the pages that I have, and I will give the witness back his originals.

(Documents referred to were marked Berry Deposition Exhibits 3-A through 3-J for Identification)

BY MR. LEWIS:

Q Now, sir, when you were describing the photographs, were you speaking of Category 8 under Keith Trial Exhibit List the ones -- all of the photographs you had in there?

MR. DUBUC: The ones in here?

MR. LEWIS: Yes.

THE WITNESS: Oh, no.

BY MR. LEWIS:

Q What other photographs have you seen?

A I've seen a whole stack of photographs.

Q Let's talk about prior to the time you wrote your report.

A I still saw a lot more photographs than are in here.

Q I would like to start, sir, with these first.

A I can't tell you the number of those photographs. There are a large series of photographs of the accident.

Q I understand that, Doctor. Just bear with me and I think we will be able to do all right.

When was the first time you saw photographs of this crash?

A In July, the first meeting that I had with Mr. Dubuc.

Q And you saw photographs in Mr. Dubuc's office; is that correct?

A Correct.

Q Now, were the photographs that you saw used as trial exhibits, prior trial exhibits? Was that your understanding?

A I think that is true.

Q Did you see any motion pictures?

A I have not seen any motion pictures.

Q Did you see any photographs other than large 8 by 10's or 10 by 12 photographs?

A I did last night. I saw some pictures --

Q I understand that. I'm going to get to that.

A I am talking prior to this time.

Q We're speaking of the time you were in Mr. Dubuc's office. Did you see any of the pictures that you saw last night, earlier in Mr. Dubuc's office?

A No.

Q Did you see the motion pictures last night?

A No.

Q So you saw what you understood were prior trial exhibits; is that correct?

A That is correct.

Q Did you see any photographs that you understood came from a Freedom of Information Act request to the United States?

A I don't know. To my knowledge, I do not know.

Q Did you see any small contact prints of 35 millimeter or whatever in your meeting with Mr. Dubuc?

A I did not.

Q In July, were there any other persons other than attorneys present at that meeting?

A No.

Q Did you come into town for the purpose of that meeting?

A Correct.

Q Now, when was the next time that you saw photographs?

A There were a few photographs that were used, reviewed, at a meeting that was held in mid-August.

Q Do you know the date of that, sir?

A I think it was August 15. That was held here in Washington.

Q Were they different from the photographs that you saw in July?

A No. There were some, a few, very few of the same photographs.

Q But there weren't any different ones?

A I didn't see any different ones.

Q When was the next time that you saw photographs?

A Last night.

Q So the photographs, any photographs that you saw last night or data that you got from those could not

have entered into the opinion that you wrote on September 9?

A Correct; that is correct.

Q What did you see last night?

A I saw a large stack of photographs that were photographs of the accident.

Q Did you see any color ones last night?

A No, I didn't see any color; these are all black and whites.

Q Did you see any slides?

A No.

Q You saw no motion pictures?

A I saw no motion pictures.

Q Do you know how many pictures there were in this group that you saw last night?

A No, I really do not. It's a large stack.

Q Do you know the size of them?

A I would think maybe 4 by 5's or something like that; they're not the 8 by 10's.

Q Smaller than the ones you saw before?

A Smaller.

Q Have we named all of the occasions that you saw photographs?

A Those are the only times I have seen photographs.

Q Now, do you know, when you were in Mr. Dubuc's office for the first time, how many photographs you saw?

A I really --

Q Approximately?

A I don't know. They were in a box and we sort of took them out -- there may have been -- I don't know. There may have been thirty; thirty, something like that.

Q And did you study those?

A Yes.

Q At that time?

A At that time, yes.

Q How long did you spend reviewing the photographs?

A Oh, gosh, I don't know. Maybe I spent an hour looking at the photographs.

Q Now, Item 10 on Berry Exhibit 10, the McMeekin chamber run, was that part of the material that you just identified?

A Correct. That is in those exhibits, right.

Q And then the time versus altitude is also there?

A That is. Well, there was -- there is an exhibit in the book.

Q And Item No. 13 is the Kurth child documents,

including the father's deposition?

A There was a father's deposition.

Q Did you read that?

A I have not read, as I told you, that stack of material. I have not read that in detail. I know I just left that and I have not read it in detail.

Q What I am anxious to find out, sir, is what you had prior to the time you wrote your September 9 report.

A I did not read that Kurth material prior.

Q Did you have the McMeakin chamber run?

A I did not.

Q Well, did you have these trial exhibits?

A Well, I don't know whether I had all of those. I had certainly had the wreckage diagrams and I had the --

MR. DUBUC: You're asking about the Kurth stuff?

MR. LEWIS: Yes.

THE WITNESS: The Kurth labeled trial exhibits, I did not have them labeled as Kurth trial exhibits. I did have those same things which have become Kurth.

BY MR. LEWIS:

Q You have an item, Kurth trial exhibits, Item No. 8 on Exhibit No. 1.

A Right.

Q You didn't have anything called Kurth trial exhibits?

A That is correct.

Q You had the wreckage diagrams, however?

A Yes. I had a book like this (indicating).

Q May I have it?

A Yes.

Q A folder, which is called Defendants' Trial Exhibit No. D-1211 and so forth and going on. You did not have that book?

A I did not.

Q You did not have it except for the wreckage diagram? You didn't have these color renditions and so forth?

A No, I did not.

Q And the printed material?

A No. Some of those are obviously charts that are from books and things which I know about.

Q I am trying to find out specifically what you had on this list, sir.

A No, I did not.

Q What expert reports did you have? Did you have Gibbons? This is under Item 9 on your Exhibit No. 1.

A None of those reports existed. They were writing reports too, I assume, at the same time.

Q Did you not have -- none of these people's reports did you have?

A Correct.

Q And Item 10, the McMaekin chamber run, you didn't have that?

A Correct.

Q And you didn't have Item 12, did you?

A Yes, I did.

Q You did have 12. All right.

Now, there's no 11. Is there some reason for that?

A A mistake. No reason. Just a mistake.

Q And Item 13, the Kurth child documents, the father's deposition, you didn't have any of that?

A I didn't have any of that.

Q Now then, the report or the article on infants and children --

A Anoxia, hypoxia, I did not have that prior to the time I wrote the report.

Q Did you have Item 15?

A Yes, I did.

Q That is the aerospace article?

A Correct.

Q Did you have 16, affidavit of Patricia Quinn?

A I can't swear to whether I did. I think I did, but -- I think so.

Q Did you have the letter of the FFAC to the adopting parents?

A I did.

Q Now, other than the items we asked, was there anything else you did not have when you wrote your report other than the ones that you have identified?

A Can we be sure again what we said we did, what we have identified? There's none that I know of.

Q You said that you didn't have the Wise and DeBolt depositions but you had all of the other items in Item 1?

A That is correct.

Q That is my recollection of what you said.

A Correct.

Q Did you have Item 2?

A Yes. Item 3; I had 4; I had 5; I had 6; I did not have 7. I did not have -- well, I had some of 8. I didn't have any of them as listed here. I had none of 9 and we have been down the rest.

Q Now, does this list now describe everything that you have been supplied with and that you have considered in arriving at your conclusions?

A It does not include everything that I have considered in arriving at my conclusions because I obviously --

Q I am trying to --

MR. DUBUC: Let him finish.

THE WITNESS: I looked at references and things which obviously have importance.

BY MR. LEWIS:

Q I understand that. I am talking about things supplied to you by the Lockheed Aircraft Corporation or anybody else in connection with this case.

A To my knowledge, it does. And I haven't sat down with that -- we did look at the things that were transmitted. I did look at those this morning, and I obviously haven't looked at those stacks that are there to confirm that but I would say yes.

Q Well, how did you make up this list? You say you made up the list since you have been in Washington?

A Pardon?

Q Did you make up Exhibit 1 since you have been in

Washington?

A I said I made it this morning.

Q Was it made up from memory?

A No. Made up from looking at some of the things transmitted to me from Mr. Dubuc's office.

Q So you made it up from a letter or letters?

A I tried to look at the things that had been sent to me, the transmittals that had been sent to me, on file, quickly. I went to that file and I worded some of them differently, I guess, because I was trying to do it in my own shorthand way here.

Q But did the Lockheed Aircraft Corporation give you or their attorneys give you the letters this morning?

A I asked for a file.

Q That they sent you?

A I asked for a file of things that had been sent to me so I could review that.

Q Have you seen medical reports on any person who was on the airplane?

A Medical reports?

Q Yes.

MR. DUBUC: You're talking about children?

MR. LEWIS: Anybody; men, women, children.

THE WITNESS: I don't know for sure what you mean by medical reports. The things in the testimony, the things here, I haven't seen a specific --

BY MR. LEWIS:

Q Other than Exhibit 1. I am talking about things independent of Exhibit 1.

MR. DUBUC: You mean other than Kurth?

MR. LEWIS: Pardon?

THE WITNESS: This is Kurth; this is some material in there by Schmalein.

BY MR. LEWIS:

Q I understand that. I am talking about independent of Exhibit 1.

A No, I do not think I have.

Q In other words, you haven't seen any reports on any crewmen?

MR. DUBUC: You will have to answer on the record.

THE WITNESS: I'm sorry. No, I have not seen any specific medical reports on crewmen.

BY MR. LEWIS:

Q You concluded in Page 3 of your report -- and I would like to ask that at some point we mark that as

Barry Exhibit No. 4 for Identification.

MR. DUBUC: Do it now.

(Document referred to was marked
Barry Deposition Exhibit No. 4
for Identification)

BY MR. LEWIS:

Q Now, in the second paragraph of Page 3, you say, "As a result of my review of the voluminous materials"; we talked about your review of the voluminous materials; we're speaking of the items on Barry Exhibit No. 1. Is that correct?

A That is correct.

Q Now, it was your understanding that there was no injury to any of the restrained or "holding on" passengers in the troop compartment of the C-5A; is that correct?

A That there was no injury to the restrained or holding on people in the troop compartment?

Q Yes, sir.

A With the exception of -- I think there was one child who had a -- one of these pictures shows a package that they had around their neck to carry with them, and apparently this child had this. I think the evidence would show that this child was strangled by that cord.

Q Other than that?

A Other than that, I don't think we have -- I know of no other. I don't remember any other injuries that occurred from people who were not free.

Q Pardon me?

A Who were not holding on, you know, people -- unless they let go.

Q You say on Page 3 that you reviewed a great deal of data here, "and it convinced me no injuries should have been sustained by restrained or 'holding on' passengers."

Is that an accurate reading?

A That's right.

Q And it was your understanding that other than the baby that you just mentioned, there weren't any injuries to anyone in the troop compartment; isn't that correct?

A There were some injuries that occurred. For instance, Lieutenant Aune, when she let go, tried to catch a man's leg and slid down the thing and into the end; and in that case, she was not holding on and thus was not restrained. So I guess I'd still say what I said here, correct.

Q How many people were injured in the troop compartment?

A How many people totally were injured in the

troop compartment?

Q In your understanding of it.

A Well, I might have made a note about that.

Q You don't have any recollection of that?

MR. DUBUC: Wait just a minute.

MR. LEWIS: I am happy to have him look at his notes.

THE WITNESS: I would like to take a look at my notes.

BY MR. LEWIS:

Q Do you have a recollection independent of your notes?

MR. DUBUC: He just said -- you're asking for a specific number.

MR. LEWIS: I am asking him if he has a recollection and I would appreciate an answer, Doctor. Then you may look at your notes.

I have a right to test his recollection.

MR. DUBUC: Do you mind if he recollects from his notes?

MR. LEWIS: If he doesn't mind --

MR. DUBUC: Yes, he does.

THE WITNESS: My recollection of whether the --

you want the number of people who were injured?

BY MR. LEWIS:

Q From your understanding of the situation, sir.

A There were -- let's see. In that troop compartment, I think there may have been as many as five who were definitely --

Q Injured by deceleration; right?

A I don't know if they were injured by deceleration or whether they were not. Some, for instance, they were injured -- there was an injury that occurred to one of the individuals who was on a ladder at the time of the decompression and was held up and there were some other injuries that were caused by people being free and going down, not restrained.

So there were -- I think there were at least, I would say, something like five.

Q Do you have notes on those?

A I think I tried to come up with some of the numbers. There were -- as I remember it, there were two adults that died and one --

Q What page are you looking at?

A I am looking at Page 3-J. There were two adults that died and one child that died.

Q Did you have this information when you wrote your report?

A Absolutely.

Q Now, show me where you're looking on 3-J.

A I am looking over on the far right lower corner.

Q Read that for us, the material part.

A It says, "Dead troop, 1 child, cord around neck, two adults thrown."

I do not have down all of the injuries in that. It looks like thirteen; I can't remember how I was doing that.

Q You have "Dead troop," under that you have one child and two adults, and you have the word "cargo."

A Cargo compartment. Those are the people in the cargo compartment.

Q You suggesting they were dead, or not?

A No, they are not.

Q DeBolt, Wright. What is the next item?

A Wise. The word "survived," which I think is remarkable somebody survived in the cargo compartment and there were -- then I am not sure how these other figures came about because I was trying to do total down at the bottom and I was looking at -- at the time I was doing this,

I was looking at this piece of paper right here, which is the accident report.

MR. DUBUC: Exhibit B-3.

BY MR. LEWIS:

Q May I see it?

The second page?

A The second page where they list the total of people. I had been looking at that page where I made -- when I made these notes.

Q You have location, A/C, which means aircraft?

A Right.

Q And it says, "number each area - dead - injured."

A That's why I made a note to myself, because I was going to try and figure out how many died in each of those areas, correct.

Q Is it important to know what type of fractures and that sort of thing might be sustained by a person in the troop compartment?

A What type of fractures?

Q Yes.

A That might be sustained, yes, it would be important, depending on what you're looking for.

Q You're interested in trying to understand the

deceleration parts of that?

A I have no question about the deceleration of the aircraft. Indeed, if you did let go it was possible for someone to get, depending on what part of them hit -- I don't think that is material to what we're talking about.

Q And in an understanding of the G-forces, that would be important, wouldn't it?

A Well, I think the G-forces were so low, I don't think that would make any difference in the G-forces. I think you can do that very obviously because it did happen with 1.6G and you know you can do that. You could do that here in this room. There are a lot of people who can create that kind of injury.

Q I am just interested in what you know about the type of immediately observable injuries to persons in the troop compartment and when you have seen any reports on those and where you have seen any reports on other types of fractures and orthopaedic-type injuries of persons in the troop compartment.

A The only thing I remember from testimony -- I have not seen medical reports, as I previously stated. I have seen in the testimony that Lieutenant Auma, as she slid down the -- when she let go and slid, she ended up with

probably a fractured vertebra from the sound of her testimony, from what she said. And so that type of injury, it depends on what you hit, where you hit it -- your head or your arm or whatever.

Q How many G's would it take to fracture her vertebra?

A I think that the point is that you could fracture; it would be possible to fracture those vertebrae if you were unrestrained and hit something even if you were doing it at the 1.6 G's which I think is what was true.

Q So if you hit a flat bulkhead, you could create the kind of fracture she had with the 1.6 G's; is that your testimony?

A I think that is possible to do.

Q Is that your opinion?

A Yes. If you are thrown at that point, if you're free and you go in that G's and you strike an object.

Q Like a bulkhead?

A Right.

Q A flat bulkhead.

A Right.

Q What is the word underneath "location" and A/C?

There's two names and I don't know what they mean.

A Wall, there are two words down there that I had seen in some of the material that I guess I just put down there --

Q They don't have anything to do with the injuries?

A No. They have to do with the condition of kids.

Q I understand. But you're not relating those to injuries?

A No.

Q I understand that --

A This is a note sheet; that is exactly what it is.

Q I am just trying to understand, Doctor. Can you tell me the names of the adults that died in the troop compartment?

A I don't think I can.

Q Can you tell me whether they were men or women?

A There was a -- I think one was a man and one was a woman.

Q Now, what were the injuries to the man?

A I don't remember the details of the injuries to either one of those because I didn't think that it was pertinent to the decisions that I was making.

Q I understand.

When did he die?

A When did the man die?

Q Yes. Did he die in the airplane in the troop compartment before it hit the ground or after it hit the ground, or when did he die? Do you know what kind of wound he had?

A No. I said I do not remember those wounds.

Q And they do have a bearing in the understanding of what happened in the aircraft accident, do they not?

A I don't think they have any bearing to what happened to the children. They have -- I think they have no bearing.

Q Would the number of fractures that the children sustained sitting in the seats have a bearing?

A The number of fractures that children sustained sitting in the seats?

Q Yes. Would that have a bearing on this?

A On a number of G's?

Q On the number of G's, the deceleration forces.

A I think these children were so well padded and fixed into those seats that I think that, again, if someone were free and had something happen there, I think that could have an effect, something could happen to a limb or

something of that sort. I really think, again, is the question we're dealing with here as something happened to this particular -- as I understand it, the question is something that has happened to this particular child as far as this person's capability to function mentally.

Q I understand that, Doctor. I am trying to understand the data you had available. I have read a good deal about airplane crashes. I am trying to do my best, and I am not an expert and I am just asking what you considered important.

Was it your understanding that all of the children were in their seats throughout this event?

A The children in the troop compartment were all tied down, correct.

Q And were they that way at the end of the -- when the troop compartment came to rest, with the exception of one child that was found under the seat? Correct?

A There is one report by Lievermann which said that she found -- and that is the only report, incidentally; no one else could corroborate that -- which said that she did see seats turned over. And I think there is obviously some difficulty in trying to say what happened there, whether those seats were really turned over, and it's my

understanding from reading this material that there were no infants that were totally out of the seats.

Q I want to know the data that you relied on. Did you assume there were seats that were turned over or did you not?

A I personally, having read that material and looking at that, reading the reports and comparing what this one report said versus all of the other reports, I would tend to believe the other people and my feeling is that there were probably people out of the seats.

Q So then -- I am just trying to get the factual assumptions that you made, sir.

A Right.

Q As I understand it, your factual assumption at the time the troop compartment came to a stop, all of the babies in the troop compartment were in their seats and strapped in, restrained. Is that correct?

A I think that is correct.

Q Now, under those circumstances, with a G of 1.6, would you expect to see fractures in the bones of the children who were in those seats?

A Tied into?

Q Yes.

A Tied into the seats? No, I would not. When they're facing -- particularly the backward facing seats.

Q It would take G forces in excess of 1.6 to cause fractures; is that right?

A No. I just told you you could create the fractures with 1.6 G's if you were -- depending on where you are and whether you're free and can be put against something.

Q I am not being very clear, then. I am saying, assuming as you did that the children were in those seats restrained as you have described, which is what you have assumed, I would ask you would 1.6 G's cause fractures. And you said no.

A Restrained, no.

Q Restrained in that circumstance. Now, my question then, sir, is, It would take substantially more G's than 1.6 to cause fractures in the bones of children restrained in that fashion, would it not?

A It would take one heck of a lot more going backwards; in the backward facing movement, it's very impossible.

Q All right. But if that were true, that would indicate substantially many, many more G's than 1.6, would

it not?

A If what were true?

Q If it were true that the children were restrained in the seats as you have described, the seats were backward facing, and they were still in their seats at the time the airplane came to a rest that it would take many, many more G's than 1.6 or many times 1.6 G's to cause fractures in the bones of those children?

A The totally restrained, as we have said, I think it would be virtually -- I guess -- I don't see how you could produce fractures in those children restrained in a backward facing seat.

Q But in any event, it would take a great deal of force, substantially more than 1.6, if at all possible?

A If at all possible, and I think that is impossible.

Q It would take a lot of force if it were possible; right?

A Right.

Q Now, what have you learned in your investigation of this accident about fractures to the children in the seats in the troop compartment?

A I don't remember a number of fractures in the

children in the seats.

Q Did you ask? Did you ask Lockheed Aircraft Corporation or the United States whether there were fractures to any of the children in the seats?

A I don't think so. I don't know. I can't honestly tell you whether we did that or not.

Q Did they furnish you with information about fractures to the children?

A I have not seen a list saying this many children had fractures.

Q Do you know any information about fractures to the children in the seats?

A In the seats?

Q Yes.

A No.

MR. DUBUC: In the troop compartment?

MR. LEWIS: Yes, in the troop compartment.

THE WITNESS: In the troop compartment, no.

BY MR. LEWIS:

Q All of my questions on this line are predicated by the words "the troop compartment," and I am not trying to be tricky.

A I am aware of that.

Q I am discussing the G forces.

A Okay.

Q To put it another way, if there were fractures to the children who were restrained in the seats, it would indicate substantially more G-forces than 1.6, which we have already agreed on; is that right?

A Well, yeah. I would find it very hard to believe, is all I would have to say. Okay? I believe --

Q Let's say this. If the seats which are -- if they're stressed for a number of G's and they're upside-down, that would indicate a lot more force than 1.6?

A That is a different kind of G. The person is getting that G.

Q How many G's would it take for that seat?

A The person isn't getting that seat G; the seat got that G. The person didn't get that G. You transmit different G loads through the structure than you do through the individual.

The G's that the individual receives have to do with the deceleration that is going down here; that then gets transmitted to you. It has to do with space -- there are a whole bunch of factors, obviously, that have to do with that G and it's spread over the body, the rate,

etc., the duration, and so forth.

Q How many G's would it take to tear one of those seats out?

A I don't remember for this particular seat, but I think the seats -- in fact, one of the discussions that was held with Mr. Edwards, I think the seats were stressed for something like -- I don't remember -- 12 G's, I think, something like that.

Q Edwards told you that none of these seats were displaced; is that correct?

A Correct.

Q And that is an assumption you have been going on?

A Correct.

Q So on your premise, if the children had fractures, it wouldn't be because of the seats were upset; isn't that correct?

A (Affirmative gesture)

Q You have to answer.

A Yes. I'm sorry.

Q Now, you also agree, do you not, Dr. Berry, that if there was evidence of fractures in the children or some of the children from the seats, that would indicate

substantially more G-forces than 1.6?

A Well, I would have -- I really do not know why the children would have fractures if they were in, as I have said, previously stated to you, in those seats. Something would have to occur to produce those fractures, either direct blows or something of that sort.

Q Do you have any -- Mr. Edwards told you that the troop compartment remained intact and there weren't any direct blows, didn't he?

A That is right.

Q Are you including that as a possibility?

A Am I including what as a possibility?

Q The fact that the troop compartment collapsed.

A No. We have picture evidence that it did not.

Q So assume that the troop compartment didn't collapse and -- see, I am trying to get the parameters because -- Let me withdraw that.

I understand that, sir, and I may be wrong, but in reviewing data about Air Force accidents or airplane accidents that frequently the procedure is to find out the facts, the type of injuries, and read backwards from that. Is that not a procedure that is frequently used, sir?

A Correct.

Q And if you had an injury, for example, and you know what happened physically -- I am talking about the deformation of the passengers' space -- then it gives you at least an avenue to understand the kind of forces that were involved. Isn't that so?

A Yes, or the position of equipment. We looked at equipment position, all sorts of things that would help, correct.

Q The point is that you can even find sometimes airplanes that have almost no damage and you can have a number of fatalities.

A That has happened.

Q And people then take that circumstance and they work back from that to try to figure out what killed the passenger.

A Yes.

Q That is true with respect to injuries? You have injuries and certain physical situations and you work back from that to see what forces were present that would create that type of injury. Isn't that so?

A That is correct.

Q Now, if we have an intact troop compartment and we have -- assume that the children were in their seats

restrained as you have assumed, and if we also find that there were fractures of the long bones and other bones among the children that were strapped in those seats, then that does suggest that there were forces greater than, substantially greater than 1.6 G's, does it not, sir?

MR. DUBUC: You have asked this before, I want to note for the record. Are you asking him to assume somebody in fact did --

THE WITNESS: -- have a fracture?

MR. LEWIS: Yes.

MR. DUBUC: Just so we've got the record clear, are you suggesting that some child restrained in the rearward facing seat did have a fracture?

MR. LEWIS: Yes, and you have the records of them.

MR. DUBUC: I would like you to identify them.

MR. LEWIS: I don't memorize those things.

THE WITNESS: I cannot believe that anybody in that --

MR. LEWIS: There are fractures.

THE WITNESS: I am telling you honestly.

BY MR. LEWIS:

Q

That had injuries in those seats.

A I have not seen that. I do not -- I am not aware of it and I cannot believe that that could occur.

Secondly, I do not believe by any stretch of the imagination that anyone could -- that you could have more G's than what we're talking about, a mass of 2 G's, even saying that, but the calculations of that that I have seen done by at least two people, Edwards and another engineer that Dr. Gaume consulted, and both of those calculations came out very close, in that range of the 1.6 G's, and if you look at those calculations, the individual human being, you or anybody else could not hold on. You could not hold on. If you had had more than 2 G's, you would have had everybody in the front end of that airplane.

Q But people can be wedged between seats and restrained by the very seats they're holding onto.

A What about the people in the aisle?

Q If you accept all of that as accurate.

A I accept that.

Q But that might not be accurate. If that is not accurate --

A Sure.

Q Pardon?

A I am only going on what I read. When somebody

tells me they were there, they're saying that is where they were, I am believing that. That is all I can say. I can't say any more than that. I was not present and I am going on this standpoint.

Q I understand that, but the recollection of people sometimes, the way they were and what happened, in all honesty they can be mistaken; is that not correct?

A No, I think that it is possible to do that. From the way that I have read, I do not know any of these individuals involved, I might say, but having read the testimony of the people and in several different ways it's been done, by examination by you or others and by statements, I have a very strong feeling that -- in particular, when we train people, I think, very carefully who were either pilots -- because I have been deeply involved in that training -- and the people we have for medical crews, those people are also deeply trained and what happens in aircraft, they're trained to react promptly when they do have difficulty and I think they have a much better possibility of recalling something properly and I think that showed in the way this accident was handled and that is why I have much greater belief in what those individuals said than I do in the -- I'm sure they're very well-meaning -- the lady

that had not had any of that experience before who was very tied to the children.

Q Let me ask you this, then: Who was in the aisle?

A Which person was in the aisle?

Q Yes.

A There were --

Q I am speaking of the main aisle as opposed to between the seats, aisles between the seats. You're speaking of the aisle not between the seats; is that correct?

A Right. There were some aisles between the -- I'll tell you. I started trying to draw pictures for myself of -- trying to put where these were because you read so many of those statements and I don't know that I could tell you by name which of the attendants, the nurses, each of those nurses that was in that top section and then Stark himself -- Stark got down, as you described, between some seats and tried to wedge his back against the seat, which he did very successfully.

There were others. And Aime, as I recall, she was at the aisle and she obviously -- when she let go, she went right on down that aisle.

Q She was not between the seats but in the aisle?

Is that correct?

A That is correct.

Q Who else was in the aisle?

So she could have been pulled free from her hold
in the aisle and thrown to the end; right?

A That is what happened.

Q Now, tell me, who stayed in the aisle and was
not pulled free?

A She was pulled free because she let go.

Q Who was not pulled free?

A I can't remember the name of the other one. I
think there was one other nurse that was in the aisle also
behind -- several rows in front of that. I don't remember
the nurse's name now.

Q Most of the people were wedged between the seats;
isn't that correct?

A What they were trying to do, they were trying
to be as close to a group of children as they could.

Q But that would be different than being in the aisle, right?

A That would be totally free, now. They are somewhat restrained, absolutely, holding on in the aisle. I think holding on, whether you are in the aisle or wherever.

Q But you were telling me, Dr. Berry, about people -- conclusions that you drew because people were able to stay in the aisle unsupported by anything else other than holding on in the aisle, and we know Aune was thrown to the end.

A When she let go.

Q She could be mistaken about whether she was pulled free or let go.

A I doubt that. You may not, but I doubt that, sir.

Q I understand that, sir. Do you know of any -- why wasn't she protecting the children like the other people?

A Why wasn't she protecting the children?

A You said the other adults were trying to put their bodies over them in between the seats?

A I don't know that they were really trying to protect them by putting their bodies, the way I read that, someone described that they were sort of encircling and

getting close to those seats.

Q Were they protecting the children or not?

A She was the person in charge, and she was trying to be very responsible and trying to see if people were in each of the areas and as she described it, that sounded to me like that is exactly what she was doing. She was doing exactly what she says.

Q Was there a warning that the airplane was going to crash?

A That it was going to crash?

Q Yes.

A No, there was a warning that they were going to try to do a landing, and they were trying to get back to the field; and I think that there was several of the people reported differently what they heard as to what was going to happen. A lot of them -- there was some reassurance by the crew that indeed they felt they were going to be able to get back to the field to do the landing. And then in some instances, the first thing they knew, they were landing and they didn't know where they were. They didn't know whether they were in the field or not. The people inside had no way of knowing.

Q Were the people in the troop compartment told to

brace themselves for a hard landing?

A. No.

Q. So you say they were not?

A. I don't remember anything where they said you're to particularly brace yourself for a hard landing. They all knew they were going to try to make this landing; they knew they were going to have difficulty with it; so they were -- and I think that Lieutenant Aune was one of the ones trying to help people to do that, to be in a position. Everybody was trying to do it; I think they felt that was the right thing.

Q. Lieutenant Aune knew or should have known there was a risk of a plane crash; isn't that right?

A. I am sure she did know that.

Q. And she was trained, was she not, under those circumstances to get a secure position; isn't that correct?

A. Right.

Q. So her training would have, if there was no seat available, and there was not?

A. There was not.

Q. And she should have taken the next most secure position by her training; is that not correct?

A. She probably would have done that. It depends on

what --

Q Would you answer my question, sir. Either that was correct or not.

A Which was correct, she would or she wouldn't? I cannot tell you what she would or wouldn't do.

Q I am just trying to understand what she was supposed to do according to her training. You talked about what she was trained to do. I suggest to you, sir, she was trained in the event in the kind of data that she had whether she had an express warning or not, that she should protect herself as good as she can under the circumstances.

A And I think she felt --

Q Is that correct?

A Yes, I would say that is correct. It's my feeling from reading her testimony that she felt she did exactly that for the situation for which she found herself. She was trying to protect herself by hanging on.

Q In the aisle?

A And she saw this motion of an individual being thrown, and she tried to stop that and let go to catch that individual, and she slid down the aisle. That is something that is unfortunate, but it happened.

Q Now, the dead woman, you say, was in the troop

compartment. What type of injuries did she have and where was she located?

A I do not know.

Q She wasn't flung down the aisle, was she?

A I do not know that.

Q Do you have any knowledge?

A I suspect she was flung, but I do not know.

Q Doctor, were any scientific investigation --

A But I do not know that.

Q I want to know what you know, sir. I don't want to be rude.

A I do not know that.

Q You're suspecting?

A Right. But I do not know that.

Q Are you relying on your suspicions; if you are, I want to know what they are.

A No.

Q Not at all?

A No.

Q What data do you have about the woman that died?

A I don't know that I have any data. I haven't looked at any data about the woman that died.

Q Have you asked for any data about her?

A No.

Q How she died, where she was, what her injuries were? Is that material to the consideration of the degree of force present in the troop compartment; isn't that so?

A I don't think it has any material bearing on what the degree of force would be on the infants who were in those seats. I think that is what I was being asked to give an opinion about. I was not asked about anybody who died, the people who died. They are not part of what I am being asked about. I was being asked what could happen when the forces that occurred to these infants, who were in the seats, in the troop compartment.

Q Understanding what happened to the infants in the seats, you have to go beyond that to understand what happened to some of the other people, do you not?

A I don't think that that is necessary if you know what the G levels were.

Q But if the persons that calculated the G loads were mistaken, then that would be important; is that correct?

A If you did not believe that the data that were presented, you could go in and look at that for other data and try to put it in perspective.

Q And that would be a way of checking whether their

calculations of the G force or G load was correct, that is to say that the type of injuries --

A I do not believe that because I have told you previously I think that you could kill somebody very easily at 1.6 Gs. You can throw an individual at 1.6 G and kill them, and there isn't any question about that. You can do that.

Q All right. Will 1.6 Gs crush a chest?

A Well, if the chest -- if 1.6 Gs is just on your chest, it will not certainly. But if you are thrown into something, what you're doing is adding force to that. It depends on how you take that G.

Q Well, then, you're saying that a person thrown into a bulkhead like this airplane had at 1.6 Gs should sustain a crushed chest?

A It depends on how they hit, what they hit, and so forth.

Q Is that right?

A Yes.

Q That would be enough to do that?

A I think it could.

Q Fracture long bones?

A Possibly fracture a long bone, possibly fracture

a spine.

Q Now, tell me, how do you arrive at the 1.6 Gs?

A I didn't arrive at the 1.6 Gs. That is not my expertise, to try to calculate. I know I have looked at the formulation. I am familiar with the determining the acceleration loads, and I looked at the formulas that were calculated by the engineers, and the speeds and distances. It's a matter of the distance that you decelerate over. The speed that you're going and the distance with which you dissipate that speed, and those distances, as from everything that I have been able to put together from looking at both at the pictures and from the measurements and things that were made as a result of that, where wheels hit, et cetera, I feel very comfortable that those calculations were done properly.

Q All right. And the calculations were done by Dr. Gaume and Mr. Edwards, is that your understanding?

A They were done by Mr. Edwards first.

Q And then the engineer for Dr. Gaume?

A Then an engineer for Dr. Gaume, correct.

Q Now, it was your understanding from those people that the peak Gs was 1.6?

A No. I think there was a peak G that was -- it

could have been as high as 4 something as a peak.

Q Four to 4.6 Gs?

A Something like that.

Q Now, how many times did the --

A It's possible it could be that.

Q How many times did the Gs peak at 4.6?

A I don't think there is any evidence for sure that it did peak at 4.6. There was a calculation that said it is possible that you could have had a peak, that was the average G, the average G given was 1.6.

Q But average Gs don't really tell us too much, do they?

A Well, that is the sustained level to -- if you're exposed momentarily to a much higher G load than that, we could -- we could expose you to some very high G loads as you well know. I am sure you do. You have seen some. People jumping off of buildings and jump off of a table here, and you could create an extremely high G load for a very short period of time, and have no problem with that.

Q The people that have had those falls have died?

A Sure, you can do that.

Q You can have a very serious injury with a 4.6 G on one occasion, can't you?

A It depends entirely on how it's administered. As I told you, I can't just say G, you can't give a G number. You have to talk about where you're getting it, what direction the body you're taking it, what your position is, how long the set rate was.

Q I am going to want to know all of that information, what you relied on, in this situation. What was the axis of the 4.6 Gs that you heard about?

A They're talking about Gs that were taken from in this instance, you're taking the G in the chest to back, which would be a --

Q What is that axis?

A Positive X axis.

Q That is the positive X axis?

A Yes.

Q And can you tell how many -- what is the duration?

A In seconds?

Q In any time unit you want to use.

A Oh, I don't remember the total. I think the total period of the slide was something like there were two from the first hit and the second hit, and -- may I look at my notes?

Q Sure.

A I have a note somewhere.

MR. LEWIS: Off the record.

(Discussion off the record.)

MR. LEWIS: On the record.

THE WITNESS: 5.6 seconds, and then 9.4 seconds.

BY MR. LEWIS:

Q Then these are the two times the airplane struck?

A The troop compartment, right, the two times there was a -- from the point of -- from where the airplane hit and started on this long slide. We ended up that there was one point from the first impact point to the break up point was 5.6 seconds, and from there to where the troop compartment ended up, it was 9.4 second.

Q Now, how long did the peak G last?

A I don't know for sure how long the peak G lasted.

Q How many times was there a fluctuation from that 4.6 Gs and lower?

A I don't think that from the calculations that were done that there was anything that showed that there were fluctuations, because it appears that there was a fairly constant deceleration during this period. And initially the speed at the first time, at the time of the first hit, it was roughly 310 miles an hour, 370 knots. And

it was the same speed at the time of the second, even though it lost part of that aft gear. And there -- so there was a fairly smooth end and steady deceleration. I think that was certainly added to by not only the calculations Mr. Edwards, the ones he did, and the things he did there, but certainly by the testimony of the various people who were aboard that aircraft, including the pilots who were very familiar with landing aircraft in various conditions, and any of us, I think, who have been on -- in fact, I was just on -- I would not say the airlines flight the other night, and we did a landing which I think I took a hell of a lot more Gs than normally, and he hit hard and bounced along; and I think that I took a lot more Gs there than anybody did here.

Q More than 4.6?

A I suspect that I took more than 4.6 at that time. I know I damn well took more than 1.6.

Q When you say suspect, Doctor, I don't know what that means.

A I could not measure the Gs.

Q Was it your judgment that it was more than 4.6?

A Yes.

Q What was the make of the airplane?

A It was at that time it was a 727.

Q At what point will this airplane, meaning the C5A airplane, break up?

A At what G force?

Q How many G forces, at what point would it start to break up structurally?

A I don't know.

Q You have any knowledge on that?

A No, that is the structural capability of that aircraft; I think the thing that is very fortunate about that situation is that the Gs that the individuals got were subjected to were remarkably taken care of by abating all of that force right -- unfortunately, wiping out the lower compartment of that aircraft. Had that not happened, I suspect you would have lost everything.

Q Please don't tell me about suspects. Let's go on.

Do you have any judgment as to how many Gs it would take to break up that airplane structurally? You think it would break up, begin to break up structurally in excess of 2.5 Gs?

A The aircraft would begin to break up structurally?

Q Yes.

A Well, I think what broke the aircraft --

Q Would you answer my question?

MR. DUBUC: He's trying.

MR. LEWIS: Just answer my question.

MR. DUBUC: You asked for his judgment.

THE WITNESS: I can't tell you a given number of Gs. I don't know the given number of Gs. You have asked me if 2.5 Gs would cause it to. I do not know whether it would or not.

BY MR. LEWIS:

Q You have no opinion on it?

A If you want to ask me why I think the aircraft broke up, I think the aircraft broke up because as it was sliding and you're taking off the material on the bottom and you're breaking up, just as if you were running along the surface here, and the friction of that as you start to take away the structure of the aircraft, it's going to eventually break apart, and that would be at places where it was put together.

Q Do you have any engineering background?

A I am not an engineer.

Q You're giving us engineering opinion?

A I am giving my opinion as an aerospace medicine

specialist who spent a good deal of my life dealing with engineers, and I am not an engineer.

Q I am sure that is very fruitful, but I am just trying to know whether you feel that you're knowledgeable enough to give an opinion as to how the airplane broke up?

MR. DUBUC: You asked him for that.

MR. LEWIS: I asked him why, whether he thought the airplane had the capacity to take more than two-and-a-half Gs.

MR. PIPER: That was not the question.

BY MR. LEWIS:

Q And he said his opinion, why it broke up was such and such.

MR. DUBUC: He told you he didn't know. You asked him what his judgment was, and he gave you his judgment.

THE WITNESS: That is my judgment, and if you ask me am I an engineer, am I trained to do that, the answer is no.

BY MR. LEWIS:

Q You're not suggesting that your opinion should be taken as to how that --

A I am not saying that my opinion is as good as

Mr. Edwards' opinion.

Q. Or other engineers?

A. Or anybody else who is an engineer.

MR. LEWIS: Let's go off the record.

(Discussion off the record.)

MR. LEWIS: Back on the record.

BY MR. LEWIS:

Q. Now, concerning again the data that you had when you wrote your report on or before September 9th, sir, it seems to me from your report that you have assumed that no one was unconscious in the troop compartment?

A. That is correct.

Q. And did you also assume that no one was unconscious in the airplane?

MR. DUBUC: When, what time?

BY MR. LEWIS:

Q. Prior to the time of the impact.

A. That is correct.

Q. Now, what is your understanding of what happened to the people in the -- strike that.

The deduction from injury to forces is the work of either a pathologist or somebody doing pathology; is that correct?

A Correct.

Q In the medical field?

A That is right.

Q Now, do you know Dr. Mason?

A Yes, I do.

Q Is he well known aviation pathologist?

A He is.

Q In fact, I believe he wrote the first book on the subject, did he not?

A He wrote one of the very early books. I am not positive it is the first. It could well have been. John wrote one, and he's collaborated on a couple of others since that time.

Q Have you ever talked about this case to any of the experts retained by the guardian?

MR. DUESUC: Do you want to tell him who they are?

THE WITNESS: I don't know any of the experts, so I can't answer that.

BY MR. LEWIS:

Q Let me find out who you have discussed the case with.

A I really have not discussed this case with any physician. You're talking about physicians, now?

Q Yes.

A I have not discussed it with any physician other than the people that you have seen here.

Q The persons that you know were retained by Lockheed?

A That is correct, with I guess, well, that really is true. I haven't discussed it with anybody. And I don't know who the guardian people are that you're talking about.

Q Now, I heard, again, if you haven't discussed it with anybody other than the Lockheed experts, there isn't any problem.

A I have not.

Q I was give to understand, and I believe by the Lockheed Aircraft Corporation, that you are a nominee for the Nobel Peace Prize?

A Yes, I was a nominee for the Nobel Peace Prize, correct.

Q Who nominated you?

A Well, I was nominated by the Canadians, amazingly enough, and by the people in Canada who felt that this was something that should be done; and I was later notified after the nomination was put in. It was seconded. This

material was obtained from this country from Dr. Robert Gilroot (phonetic), who was the head of the Johnson Space Center, and George Lowe, who was -- had been NASA's Administrator and is now President of Rentsalear (phonetic), and also from Chris Craft, who was the current director of the Johnson Space Center; and it was -- I also received some material later that that AMA, the American Medical Association, also had sent some information to the Nobel Committee.

Q Who in Canada recommended you?

A Can I come back and tell you that in a minute?
I am sorry.

Q Can you tell me what his position is?

A A physician. He is the head of a research institute in Canada. He was head of the Canadian Medical Defense Research facility.

Q And the topic, for what work?

A For the work that I did with NASA for being able to show that what man was capable of doing in the space environment. We had a great deal of difficulty trying to convince the President, the scientific advisors, and our Congressional committees, and our Academy of Science, to really understand that man was capable of withstanding

the space environment. And everybody was pretty convinced that they would be able to do that with hardware, but they were not convinced at all that man was going to be able to do that. They felt he was the weak link in the chain, and we were very fortunate in standing up and being counted for that, and making it possible.

That certainly wasn't a one-man effort. It took the development of a very good team to do that, and I feel very fortunate to have had that opportunity to tell them that we could get man into space and get him back safely.

Q The Nobel Committee, I am not suggesting any propriety, but they declined your nomination?

A As far as I know, I did not get the Nobel Prize last year anyway. It was done two years in a row. As a matter of fact, I don't remember what the C.V. says. It had one year down. It was resubmitted. I understand they do that, and I don't know anything about it. I never really had anything to do with the Nobel Peace Prize before. It was a shock to me.

Q You think you deserve it?

A Well, I think that what was done in that area I think has great import to man, and I think that I feel

very humble if I should get it. If that had happened, I would feel very humble. I feel it would be a good thing for the program.

Q My question, though, sir, is do you feel that you deserve it?

A Well, I think that the work that I did, I think that it would stand certainly up to some of the same work that people have been given Nobel Prizes for.

Q The answer is yes?

A Yes, I think that is possible, yes.

Q I am not talking about the team. I am talking about you.

A Right, right.

Q You feel that then you deserve the Nobel Prize for the work that you did?

A Well, yes.

Q Your answer is yes?

A Yes.

Q I am not quarrelling; I am trying to get it clear for the record.

A Correct.

Q Now, where does it say that in your C.V.? I am not suggesting that it doesn't, I am just didn't know that.

I saw it in another context.

A I think it's in the C.V. somewhere. On the tail end somewhere, right there, isn't it? Right there. I don't have a page number. The end of the awards section. Page 12.

MR. DUBUC: Page 12. Maybe we should mark the C.V.; is that what you want to do?

MR. LEWIS: No, but I am willing to.

MR. DUBUC: We're referring to it.

MR. LEWIS: We know it's D1277.

MR. DUBUC: D1277.

MR. LEWIS: All of these have been identified.

I don't mind marking it.

THE WITNESS: The page numbers are on the upper left-hand corner on those, apparently.

MR. DUBUC: D1277?

BY MR. LEWIS:

Q Now, can you tell me, can you give me the names of the scientific papers that would describe the work that you did that you feel that qualified you for the Nobel Prize?

A I think they are all listed here in the publications on the latter part of this C.V.

Q You mean all of your publications?

A No, I think if we start with the ones that were -- particularly where we started to develop the information from actually exposing man; and I think that would start at about number --

MR. DUBUC: Page 20 of D1277?

THE WITNESS: Page 22.

BY MR. LEWIS:

Q Page 21 or 22?

A Page 22, and if you start about number 27.

Q If you would just tell me.

A Right. Number 27.

Q Twenty-seven; any others?

A Twenty-eight, 29, all of the rest of those.

Well, down to 33.

Q Twenty-seven through 33?

A And all of that next page.

Q Thirty-four through 43?

A Right. Forty-four through 47; 48 is not a scientific thing.

Q All on that next page except 48?

A Except 48.

Q Is that correct?

A Yes. Correct.

Q And anything else?

A Fifty-six, 57.

Q You're leaving 55 out?

A Right.

Q Fifty-six?

A Fifty-seven, 58, 59, 60, leave out 61, 62, 63, 64, 65, 66, 67, 68, 69, 71.

Q Omitting 70?

A I am omitting 70. It's just introductory remarks.

Q Seventy-two?

A Seventy-three, I don't think -- well, 74, that is -- leave 74 out.

Q Omitting 74.

A Seventy-five, I think that is it. There have been some papers since then that are not on here but are not applicable to just what you asked me.

Q You see, I have some earlier ones. For example, what the general practitioners know about the transportation of the patient by air. I wanted to know, sir, I was talking about the documents that you have published.

A Those were done prior to the time that I was in the

space program.

Q I understand that.

Do you have any notes in addition to the notes that you provided us with here, Dr. Berry?

A No, I do not have them. As I told you I think earlier, when I was writing this report, because I was on the trip and I did not want to carry this material, I had an outline which when I finished the report, all I had was an outline to do the report with. When I finished the report, I did away with that outline, because I was trying to get the report done, and I had it in here, in the report that you have here. In fact, I think I could tell you very honestly any notes I have, including the ones you just copied, are really notes that are -- that I have used to try and remind myself of things that are in documents here. And I think that you will not find anything in any of those that has not been crystallized in the opinion written here.

Q I understand that, sir. But in the event that it is not clear, the reason for my asking for the notes is so that I can have a better understanding of the input of other people's material into your report, and they do suggest that, Doctor.

A Surely.

Q In more detail than your report does.

A Which do the notes suggest?

Q The notes suggest where different types of information came from in your report.

A As a matter of fact, every bit of information I have came from somewhere else. I didn't know anything about this incident, and I wouldn't have if I didn't read the testimony.

Q I am not trying to argue with you, Doctor. I understand.

A They all came from somewhere else, correct.

Q When I asked you about your notes originally, Doctor, why didn't you tell me that you had some with you?

A I didn't think that was what -- I really didn't think that is what you were talking about. Those were things taken from these very reports that we're talking about, and I thought you asked me originally about notes to prepare that report. And that is not what these were.

Q I asked you about notes that you made.

MR. DUBUC: He told you.

MR. LEWIS: The record is whatever it is.

MR. DUBUC: Yes, you have the notes now,

Mr. Lewis.

BY MR. LEWIS:

Q. What experience do you have with babies, other than as a parent?

A. As a parent, I did family practice for three years prior to the time I went into the Air Force, and during my aerospace medicine residency, I continued to see families of the astronauts and of pilots. I saw their children and that sort of thing. I am not a pediatrician.

Q. Well, what I am trying to find out is do you consider yourself a pediatric neurologist, for example?

A. No, I don't.

Q. And in the area of your interest and training, with respect to injuries that might occur above the ground, has been essentially with respect to adults; is that correct?

A. That is correct.

Q. You investigated an accident in which a child was injured?

A. I have not.

Q. Or a baby?

A. No. I have done several which were adults, but I have not, I never investigated a civilian aviation accident.

They have all been military accidents.

Q Have you ever done any experiments in the decompression injured in babies or small children?

A I have not.

Q Are you familiar with any?

A I do not think that there have been experiments done utilizing infants. I know of none.

Q What pediatric reference or pediatric physiologist reference have you used to understand the effects of this particular accident and environment on the babies and small children?

A I have looked at a number of physiology books and pediatric textbooks, looking at neonatal physiology and there was a general discussion that we were -- where we were just able to ask questions of each other when there was this meeting on the 15th that I have mentioned to you earlier; and I can't tell you all of those names, because there were all kinds of people there. I would have difficulty telling you all their names.

Q I understand. Is it fair to say, Dr. Berry, that you're the principal source of your pediatric data, that it was the opinions of the pediatricians or people who have knowledge of the pediatric -- standard pediatric

physiology, or whatever, at the meeting of August 15th?

A I don't know that that is fair to say that is the principal source. I suspect that I looked at more sources than there was time for us to discuss that subject in that meeting, as a matter of fact.

Q But then was the meeting a significant source of support for you in your arriving at your conclusions with respect to the effect of this environment on babies?

A Yes, I think it was, because there was an exchange.

Q This was pediatric people?

A Correct. I will, because talking to people in pediatrics, it was the result of these people that were seeing infants all of the time that was helpful to my ideas.

Q I understand that.

A Correct.

Q Again, in my endeavor to understand how you came to your conclusions, I am trying to go back to the source. It may not be scientific, but I think it is reasonably lawyer-like.

Now, who did you talk to at this meeting and what did they tell you?

A I cannot -- I can't tell you the names of all those people who were there. Let me go back. Christian Lambertson, who was a physiologist, was there, and I have known Dr. Lambertson for a long time, many years, and we're familiar with each other's work, and Chris is an authority on hypoxia. I think he would be considered not only in this country but the world, but certainly --

Q Is he a pediatric physiologist?

A No, he is not.

Q He's not a pediatrician?

A He is not a pediatrician, he is not a pediatrician.

Q I am not quarrelling about Dr. Lambertson. I believe that the thrust of my question was, who did you talk to at the meeting of the pediatricians -- who had training as a pediatrician or a pediatric physiologist, or anything -- a pediatric neurologist, whoever it was that you talked to.

A There were about four different people that were talked to. As a matter of fact, there were five. Three of them were female, as I remember, and two were men; and I really could not tell you their names.

Q Three women and two men, and they were all in the pediatric field; is that correct?

A. Correct.

Q. Did you know them before?

A. I did not. I had not met them before.

MR. LEWIS: Can you tell us, Mr. Dubuc, who they were?

MR. DUBUC: I haven't got the list here.

MR. LEWIS: Mr. Dubuc was there, was he not?

THE WITNESS: He was.

BY MR. LEWIS:

Q. What was the purpose of that meeting?

A. The people who were involved from both an air medical point of view and people were involved from a pediatric point of view, to try and share some views in the engineering point of view in the case of Mr. Edwards, to try and have a better understanding of this accident as well as we could, that is, to put these views into perspective.

Q. It was sponsored by the Lockheed Aircraft Corporation?

A. I can't say that. I would say it was sponsored by --

Q. Lockheed lawyers?

A. The law firm, the lawyers.

Q I don't know that they would make a distinction in this context, perhaps they do. You were invited by the lawyers?

A Correct. I was not invited by Lockheed.

Q When did the meeting take place?

A It took place here in Washington, at what is the club? At a club in Washington.

Q The name of which you don't remember?

A I cannot give you the name of the club.

Q And how long did it last?

A From, oh, it was roughly maybe six hours, six or seven hours.

Q And you hadn't formed your opinion before you arrived there or had you?

A Now, I had one meeting at that time.

Q So you had not --

A I had not, correct. I had only one meeting prior to that time but I described it to you in July.

Q Now, where did you -- what hotel did you stay in?

A At the guest quarters.

Q Can you tell me what the specialties, if any, of the three women were?

A Well, there was a psychologist involved, there was a neurologist involved; it was psychiatry involved. You said just the women?

Q Well, I am just trying to break it down so that I can -- I am trying to identify who it was that was there, and it might help me a little if I knew what their specialties were.

You say one of the women was a psychologist, one was a neurologist, and one was a psychiatrist?

A I think that is correct.

Q And the two men that were pediatically oriented were what?

A I think we had the -- one was a psychiatrist, certainly. There were three, probably three men, a psychiatrist, there was a psychologist, and I am not sure

what the third one was.

Q So now you have three women and three men?

A I think so.

Q Now, what did --

A I am not trying to be obtuse. I just really cannot remember. There were a lot of people there.

Q I am trying to get the data that aided you in reaching the conclusions that you reached, Doctor, and I am going to go over the books next, but do you remember the names of the books that you reviewed?

A The names of the books?

Q Yes.

A That I reviewed.

I thought I reviewed Mount Castle's Physiology and the Guiton -- G-u-i-t-o-n.

Q Any pediatric books, books that emphasized the physiology of babies or small children?

A I looked at two pediatric textbooks and I can't tell you which, but I still have them.

Q Who furnished those to you?

A I had them.

Q You had those already?

A I had them.

Q Are these recent publications or ones that you used in school?

A Recently published. I do a television program every week in Houston and I have to try and stay up with what is going on, so I need some references to do that and I try and keep up. The material is available to me for that reason.

MR. LEWIS: Off the record.

(Recess: 2:10 p.m. - 3:55 p.m.)

MR. LEWIS: On the record.

Let the record show that we resumed Dr. Berry's deposition. We had a hiatus in which we went to a previously existing Court commitment at 3:00 o'clock and we agreed to resume at about this time.

BY MR. LEWIS:

Q Where was Neal in the troop compartment prior to the collision with the ground?

MR. DUBUC: Nurse Neal?

MR. LEWIS: Nurse Neal.

MR. DUBUC: Known as Goffinet prior?

MR. LEWIS: He has Neal here.

MR. DUBUC: That is the present name.

THE WITNESS: I don't know that I can precisely

tell you. She was in some part of it. As I remember, she was forward of where Aune was by a few rows, but I can't tell you exactly.

BY MR. LEWIS:

Q Well, tell me who was in the -- can you tell me who was in the troop compartment whose testimony we have?

A Aune was and Stark was and Neal was and Leivermann was.

Q Anybody else?

A I'm not sure about the others.

Q Now, who was in the forward part of the airplane forward of the wings? I don't know whether you call that the flight deck -- in the forward troop compartment.

A Do you mean the flight deck?

Q Yes.

A The crew was up there. There was Traynor and Harp and -- let's see. Anybody else in there? Tate.

Q Anybody else?

A I don't think -- on that list, there were the three as I remember, the three pilots and -- let's see. I can't remember all those people.

Q Any other crewmen?

You mean three pilots and an engineer?

A There were some others. There were something like ten people in that forward -- in that crew area.

Q What was the casualties there? I want you to tell me from memory, if you can. Do you know?

A The casualties in that crew compartment?

Q Yes.

A I don't think there were any casualties in there.

Q No fatalities.

A (Negative gesture)

Q You're shaking your head?

A I'm sorry. I do not think there were any fatalities in the crew compartment.

Q We're speaking of forward of the wing area.

A Where the crew was flying the aircraft, yes.

Q Including the cockpit or whatever that section.

Sometimes here it's called the forward troop compartment. Whatever you want to call that, the area forward of the wing. I believe it was impossible at that upper level to pass through the wing. In other words, I think that was isolated unless you went down.

A I think that is correct.

Q I am speaking of that whole area forward of the wing. No fatalities. Any injuries to anybody there, any

physical injuries that anybody could see promptly?

A (Pause)

Q Would you note the pause.

A No, I can't think of any.

Q Now, did the airplane trip over the dike?

A Did it trip over the dike?

Q Or trip on the dike?

A I think it impacted, from the pictures I have seen and the descriptions of the aircraft, it did not trip over the dike in the sense that it caught something and then went nose-over that. It went across it and then went down right in a short distance after the dike.

Q The landing gear hit the dike; is that correct?

And broke off.

A Well, what it did was it looked as if the rear -- the nosegear and the rear aft gear, it looks as if that could have struck it; and I saw one picture which -- maybe it was even the bottom of the fuselage. It could have scraped that.

Q Well, I am just trying to get your understanding of what the facts were so that I will be able to understand your report.

A Okay.

Q So did you conclude that the landing gear struck the dike?

A At the time that I wrote that report, I felt that both the nose gear and the aft gear had made an indentation as they went across the top of the dike.

Q Did they break off?

A They broke off shortly after that because they were -- where they were found was shortly after they were over the dike.

Q And that would decrease the speed of the lower part of the aircraft, would it not?

A It would decrease the speed of the aircraft. There are calculations which show that amount of decrease in speed was relatively very small by the breaking off of those gears.

Q Would you show me those calculations?

A They were done by Mr. Edwards.

Q Do you have them?

A Well, they're in your --

Q Just if you have them, I would like you to identify them for me.

A He has the amount that it would be.

MR. DUBUG: Referring to Exhibit D-1298.

BY MR. LEWIS:

Q Could you show me the page, please?

Could you hand that to me?

A (Witness complies) That is where he starts the calculations.

Q We're speaking of Attachment No. 1; is that correct?

A I think that is it, Attachment No. 1.

Q Is there any other part of it that deals with the calculations we're speaking of other than Attachment 1 on Defendant's Exhibit 1298, which is Mr. Edwards' undated report. I just want to make sure I understand.

A Well, I think that is the area for those calculations.

Q Do you know?

A I don't see another one in here.

Q In this?

A In this one.

Q Is that it?

A I do not see another one in here. I think that is it.

Q That is what you relied on?

A Right.

Q But you didn't have that when you wrote your report?

A Well, those same calculations he had on another -- there was some material that is listed here like statements or something.

Q Which item is it on Exhibit 1?

A It's the material for Edwards. There was -- he had a sheet where --

Q Which number are we speaking of, sir?

A I think it is under 1. I think I just grouped that; I grouped that under 1.

Q Under the testimony of?

A Edwards, also.

Q And you say those calculations are in that?

A Right. And when we discussed this on the 15th, again he discussed the derivation of this deceleration amount.

These are yours.

Q The calculations in Edwards' testimony is the same as that attachment No. 1; is that correct?

A Yes.

Q All right.

Now, where was Neal located in the troop

compartment during -- following the explosive decompression and prior, just prior to the first impact?

A I don't know for sure.

Q You don't know?

A I don't know for sure.

Q Do you know where Dr. Stark was?

A Dr. Stark, as I remember it, was on the -- he was between some seats and he was towards the rear.

MR. DUBUC: You're talking about when?

MR. LEWIS: During the same period.

MR. DUBUC: The first impact, or prior?

BY MR. LEWIS:

Q Where -- do you understand what I am trying to find out? Some of these people sought positions of safety.

A He did.

Q And if they did or they tried to arrange themselves in some way, anticipating impact, that is my understanding.

MR. DUBUC: That is my understanding, but your prior question was, Where was Neal between decompression and first impact.

MR. LEWIS: And he says he doesn't know.

MR. DUBUC: Now you're switching to where Stark

is between the impacts.

Your question didn't give the time and what he is asking for.

MR. LEWIS: If he doesn't know, it wouldn't make any difference timewise.

MR. DUBUC: That is right.

BY MR. LEWIS:

Q Stark was between the seats?

A Yes.

Q Now, how about Tate?

A I think Tate -- you know, I said awhile ago Tate was another one either in the far compartment; that isn't true. Tate was in the aisle. She was between an aisle and as I remember she was in an aisle and hanging onto both sides of the aisle and it was not moved in that --

Q You said at no time was she between the seats. Is that your testimony?

A I think she was not between the seats.

Q How about Aune?

A Aune was, as I have already stated, was also in the aisle.

Q And at no time between the seats?

A At no time between the seats, as far as I know.

Q How about Leivermann?

A Leivermann was between the seats.

Q Anybody else that was in the troop compartment that you know of, the aft troop compartment?

A Well, we said Neal. Neal was and --

Q And you said you didn't know where she was.

A Neal is the one that has the other name now; right?

MR. DUBUC: Goffinet.

THE WITNESS: Right. Neal and Goffinet. She was forward of Aune, and I think I stated that earlier.

BY MR. LEWIS:

Q Was she in the aisle or between the seats?

A She was forward and I think she was in the aisle but she was forward of Aune towards the front of the aircraft.

Q Aune, Tate, and Neal were in the aisle; none were ever between the seats?

A They were not between the seats.

Q Is that your understanding?

A I think that is correct. I am going to draw some nice diagrams one of these days and place everybody that way.

Q I'm just trying to find out what your understanding

was of the facts, sir, at the time you wrote your report which we now know was September 9, 1981, and it's marked Exhibit 4.

A Right.

Q That was your understanding of the situation?

A Right.

I would like to be clear. I think my understanding, incidentally, at that time was certainly -- well, I had not placed each of these individuals. It was strictly by names and so forth at that time. I had an understanding of people having been in the aisle, having held on and not being displaced and others being, the ones that let go, going forward.

So I certainly had that understanding at the time I wrote the report.

Q Do you know if anybody was thrown from a position between the seats over the top of the seats?

A From a position between the seats?

Q Yes, over the top of the seats.

A No, I do not.

Q Now, your testimony is also based on average G-forces; is that correct?

A Yes. I said that, average G-forces. I realize

there are G peaks. I think that we ought to be clear. There are G peaks and I think it ought to be clear that these G peaks have been -- well, I have seen some various numbers and I think I quoted one number; that I thought it had gone as high as 4.5 or six, something in that area.

And again, it's the time and even if that level was achieved of 4.5 as a peak, again I think that is not a serious problem as far as the individuals are concerned.

Q I understand that is your view, Doctor. I am just trying to find out the data that you had. You always want to give me some kind of conclusion. I am only asking you originally for the data so I can put it all together and do my absolute best to understand it.

A All right.

Q Now, there were different conclusions as to G peaks, were there not, by different people?

A Yes.

Q Can you give me the G peak, the highest G's suggested by any of the persons at the meeting of the 15th of August?

A I think the highest G peak that I heard was -- it was suggested that it could be as high as five; I think 4.5 was one, 4.6.

Q Who said five?

A I can't tell you exactly who said that. Turnbow is one of the things in here. There were some estimates. I think Turnbow said it was five.

Q Five.

A He said it might be five.

Q Some other people said 4.6?

A 4.6. Somebody estimated it could have been as low as somewhere between two and three. So there were those kinds of numbers.

Q I understand that. There wasn't any great unanimity on this subject?

A No. I think everybody felt it was certainly within that range. There wouldn't have been any great argument about that range and therefore they did not feel that was significant. No effort was made to try to come to a unanimity.

Q There was among those present the expression of all the way between two and three and that was 2.5, wasn't it?

A Right.

Q From 2.5 up to five?

A That is, I think, correct.

Q There was 100 percent difference; isn't that right?

A That sounds like 100 percent if you double two-and-a-half to five.

Q I am not trying to be facetious with you, Doctor. If there was 100 percent --

A A hundred percent difference.

Q You suggested -- who suggested the 2.5? Lockheed's representative there, Mr. Edwards?

A I think Mr. Edwards may have done that. I honestly cannot state that, but I think that it was Mr. Edwards.

MR. LEWIS: Excuse me just a minute. Off the record.

(Discussion off the record)

BY MR. LEWIS:

Q So there was a wide disparity in the judgment as to what the G-forces were between Lockheed's representative and Dr. Turnbow?

A I think that is a fair statement.

Q Now, was there any intent by any of those present or any other time, to your knowledge, of any of the people that had been hired by Lockheed or employed by

them, either consultants or employees, to analyze how many G peaks there were and the time between them?

A This was discussed, and it was discussed in relationship to looking at the terrain and what might have occurred in that terrain; and the conclusions was that I felt they're listening to this discussion, that these peaks were -- that there were no large jumps, large peaks here or frequent peaks because there was no -- if you look at the testimony -- and I would agree with that -- in reading the testimony, too, that the way that the descriptions were made of that landing, it would be very hard to say that there were any high G peaks.

Q A number of people reported severe jolts, didn't they?

A I think I said the jolts that were reported were things like it was like a landing -- I remember one specifically saying it was like a landing in a commercial airliner like I said happened awhile ago for me.

Q Who said that?

A One of the nurses stated that in her testimony.

Q And you think that was -- Is it your testimony that you felt that this landing here was comparable to the landing of a commercial airliner?

A I think that this landing could be compared, as far as the forces experienced at that time, could be compared to those of a commercial airline.

Q And you see the pictures of the wreckage?

A I have seen the pictures of the wreckage, certainly have.

Q How much are you being paid for consulting, sir?

A My normal consulting fee for whatever I do, having nothing particular to do with this case, is \$1250 a day.

Q What is the average day?

A An eight-hour day.

Q You work six hours, do you still get \$1250?

A No. I divide that by the hours.

Q How much is it an hour, eight into \$1250?

A \$156, something like that.

Q \$156 per hour?

A I think that is correct.

Q Is that portal to portal?

A I have charged portal to portal for what I have been doing here. I don't charge hours that I am sleeping and not doing something with this case, or whoever I am working for. I don't charge that.

Q When you first came to Washington in connection with this case in August -- is that correct?

A Pardon?

Q You came here in August for the first time in connection with this case?

A July, I think it was.

Q I'm sorry; I stand corrected. You did meet with Mr. Dubuc in July.

A Correct.

Q What did you charge Lockheed for that trip?

A I honestly don't remember.

Q That is available, isn't it?

A Yes, it is. We could certainly tell you.

Q Did you try --

A I haven't billed anything since.

Q Did you charge from the time that you left Houston, sir?

A Yes, I did.

Q Did you charge from the airplane ride to Washington?

A I charged for the time from the time that I left Houston. The only time deducted was the time that I was asleep because I was reading material all of the time

on the airplane. I try to do that in a fair way.

Q So you left Houston, flew to Washington, met with Mr. Dubuc. Did you stay overnight at the Guest Quarters, sir?

A I think that first time, yes.

Q And did you stay overnight more than one night?

A No.

Q You flew back to Houston the next day?

A Correct.

Q The way you computed that, you took the time you left Houston until the time you came back to Houston and deducted the time that you were asleep?

A Correct.

Q Now, you sleep a regular normal time?

A Do I?

Q Yes.

A Well, I like to but I don't always do that, as a matter of fact.

Q How about on that trip?

A That particular instance, I did not. I was still reading material that had been sent to me prior to that time.

Q Well, what time did you deduct?

A I honestly can't tell you. That has been too long ago. I would have to go back and look to tell you. I would be very happy to do that.

Q Did you get more than five hours sleep or less than five hours sleep?

A I think something probably around five hours. I sometimes sleep four hours. I try to get seven hours sleep but I don't very often have that luxury.

Q Did you do any studying before you came?

A Yes, I did.

Q How many hours did you spend on that before -- speaking of the July meeting.

A Before I came on the July trip, yes, I did.

Q How much was that?

A Those were hours -- they were in there. There was something like -- again, it's a guess because I would have to really look. I keep a chart. I try to keep a record of hours, and because I do consulting, any consulting that I do, and this is just one of the various kinds.

Q I understand.

A Three or something, but I honestly don't know.

Q You charged the Oliver W. Garvey Center
\$1250 a day?

A Correct. The Memorial Hospital System, \$1250.

Q The Memorial Hospital?

A Correct.

Q You had a suite at Guest Quarters?

A I don't know if it is a suite.

Q Did you have a living room?

A Yes. It had a living room and a kitchen which I assume all of the rooms are the same. I don't know that for a fact.

Q You had a living room, kitchen, bath, and a bedroom. Is that the way it's organized?

A I think that's the way it was.

Q Were you by yourself?

A Yes, I was.

Q And you didn't share that room with anybody else?

A No, I did not.

Q Was that the same situation when you came for the 15th of August?

A Yes.

Q You stayed there and had a suite?

A The room was the same kind of a room, a suite, right, on the 15th; right.

Q And you didn't share that with anybody?

A I did not.

Q You came by yourself?

A I came by myself.

Q Now, what did the pediatric people, who I believe you now say consisted of approximately six persons, six physicians, three men and three women, what did they tell you?

A Well, one of the things we already discussed here was about -- you were asking earlier about the relationship of infants and hypoxia. That was discussed, and the fact that we all felt that --

Q Excuse me just a minute. I don't mean to interrupt you. What I am trying to find out, sir, to the extent that you can help me, is what you know an individual said to you, you know. When you say "we all felt," I am trying to get the input, the opinions that they gave you.

A There was an input, an opinion that infants were more resistant to hypoxia than were adults. That's one.

Two, the other discussions that came from them were related to findings that -- from people who had indeed examined some of these children and at that time the names

of the children did not mean anything to me at that time so I couldn't even tell you for sure which child was discussed.

As an example, a child that was examined and the tests that had been done on that child and what some of the findings were, how they were examining the children.

Q Anything else that you got, that you heard and you used, you know, as input into your -- to arrive at the conclusions that you arrived at?

A No.

Q So we have stated all that?

A I think so. And, really, I would feel -- again, I think that to me, that was information which was certainly of interest to me as to what was happening to the children from their point of view and still the things that I was being asked were really not that particular, were not those particular things because that is not my area, obviously.

Q Do you know, did anybody mention any studies that had been done on Vietnamese children? I am talking about other Vietnamese children, the testimony of any witnesses, of people who had done studies on other Vietnamese children, to suggest whether or not they were comparable to the typical group of American children? Did anybody mention

anything like that?

A I have heard, and it had to be at that meeting because I don't know where else I would have, that there was some mention of how would these findings that were noted, would they be findings that would not be expected in a group of children like that. And the impression or the statement was made that the feeling, that they felt these findings were that they would find in a group and were not out of alignment with a group of children, similar children.

Q I am not being clear, then.

What I am trying to say is this: If you took a -- there was a study done by somebody not connected with either party here.

MR. DUBUC: Are you referring to a particular study?

MR. LEWIS: I believe it's the McBogg study.

MR. DUBUC: McBogg.

BY MR. LEWIS:

Q Are you familiar with the McBogg study?

A I am not.

Q What I am speaking of, whether by name or otherwise, did that study -- as I understand it, the conclusions

of Dr. McBogg, the ones that she drew, and she testified at one of the early trials, was that essentially, although initially presenting a variety of problems, Vietnamese orphans that she examined after a period of time had shown to be, for all practical purposes, the same as you would find if you took a group of American children with whatever demography they would be and examined them.

MR. DUBUC: I object to that characterization.

MR. LEWIS: I understand. Just accept my statement.

MR. DUBUC: Assuming that is what she testified to.

BY MR. LEWIS:

Q Assuming that is what she testified to, did anybody say anything like that?

A No. I have not heard that mentioned. I have not heard a mention of the way you characterized it or those names that you used. I have not heard that.

Q Would you have liked to have seen what Dr. McBogg did testify about what she found in the study of Vietnamese children? Is that something you would want to know in arriving at a conclusion in this case?

MR. DUBUC: I think I have to object to that.

He doesn't know what the study is about. How could he answer?

MR. LEWIS: She did a study of Vietnamese children.

MR. DUBUC: As to what?

MR. LEWIS: As to what their problems were, if any, and how they adapted and what they were like, by examination, children not on the airplane, so you could compare them with children that were on the airplane.

MR. DUBUC: He hasn't done that.

Note my objection to the characterizations.

BY MR. LEWIS:

Q Would you want to know that?

A Well, I think that might be an interesting thing to know in this thing. I am not sure that has anything to do with my opinion about whether the forces that we're talking about here, from a purely medical point of view, had an effect on those children. I think it would have been of interest to know.

MR. LEWIS: Mr. Dubuc, is Dr. Berry going to testify in line with the description you gave the Court?

MR. DUBUC: Let me see it. Maybe I have it with me.

MR. LEWIS: You can use mine. I am talking about the topics.

MR. DUBUC: He is going to testify to the significant effect of rapid decompression, times and altitudes in this case, the conditions of the hypoxia, the time period involved in descent, the change in oxygen, the effects on the small child on the airplane, the probability of the damage as to decompression or hypoxia, the absence of any effect of the decalration and so forth; and he is going to testify to the approach taken by the defendant experts in analyzing the effects of the accident on the plaintiffs; and I think there is a suggestion from you that you start from the medical end and work backwards to see if maybe the accident caused something, and he is going to testify how you might analyze it.

He is going to testify to these things. If you want him to testify to it, he will testify to the fact that he is a nominee for the Nobel Prize and he is an internationally recognized expert in the field.

MR. LEWIS: If you want, I will write the Nobel Committee and find out what was stated there. Do you want me to do that? If you don't have any objection, I will write the Nobel Committee if we're going to make a

issue of this. I don't want to blight the gentleman's chances, but I think you interject that in this case and you might hurt him. Suit yourself. It's not my desire to do that. If you're going to ask him about that --

MR. DUBUC: About what? Whether he is a Nobel prizewinner? That is in his C.V. I plan to mark it.

MR. LEWIS: You want to demonstrate that?

MR. DUBUC: That he was a Nobel prizewinner?

MR. LEWIS: He is not a prizewinner; a nominee. I suggest that is not the same. There is a difference.

MR. DUBUC: You mean am I going to mention that? You have already examined him on it.

MR. LEWIS: I have examined him on what you have given me, Mr. Dubuc, and you don't object if I contact the committee?

MR. DUBUC: I certainly can't. I don't think there is anything privileged about that.

Do you object if he contacts the committee?

THE WITNESS: I feel a little personally sheepish about that.

MR. DUBUC: If he contacts them, will that bother you?

MR. LEWIS: Off the record.

(Discussion off the record)

MR. LEWIS: On the record.

Off the record, I asked Mr. Dubuc if he was going to ask the witness about being nominated for the Nobel Prize, and he said he may. In other words, he will not restrict himself not to, and I gather that the witness has no objection to my obtaining the records from the Nobel Prize Committee in Sweden; is that correct?

THE WITNESS: I have none, if that is what you feel you must do. I think that is -- I am sorry about that, from a gentlemanly standpoint. If that is what you feel you must do.

BY MR. LEWIS:

Q I understand. If the question is not raised by the Lockheed Aircraft Corporation or its attorneys, I won't go into it. I am perfectly willing to have it either way. If I go with it, I think I have a right, for example, to see what the Committee's comments are on your work.

A I don't think they would tell you, as they wouldn't tell me or anybody else.

Q They might.

A I don't know. You know a lot more about it than I do, if you can do that. The way I heard it was you

learn long after the fact.

Q D-y-s-b-a-r-i-s-m is pronounced how?

A Dysbarism.

Q Dysbarism. Is there a hazard of dysbarism in unpressurized aircraft over 20,000 -- operating over 20,000 feet?

A For the total symptom complex --

MR. DUBUC: Did you say unpressurized aircraft over 20,000 feet?

MR. LEWIS: Yes.

THE WITNESS: Unpressurized aircraft over 20,000 feet for the total symptom complex of dysbarism, yes, there is because dysbarism includes both trapped gas and involved gas. The chance of having any involved gas syndrome below, certainly, 20,000 feet is almost unheard of, to have things like expansion of trapped gases. You certainly would have.

BY MR. LEWIS:

Q Well, you can get a dysbarism between 20,000 and 25,000 feet; is that correct?

A You can get dysbarism between -- well, for that total, I think it's very important to separate the trapped gas and involved gas syndromes.

Q I have your article here, sir, of recent USAF

experience with in-flight dysbarism.

A Right.

Q And I don't see where you make that distinction in these quotations which I am going to read you.

MR. DUBUC: You want to show him something?

MR. LEWIS: No. I presume you're familiar with his literature.

MR. DUBUC: Just as you said, to bring everything with him. I think our rule here from the Court is we had an agreement if you were going to quote from articles, I would have copies of it, just as I have done the same for you.

MR. LEWIS: That is true in Court.

MR. DUBUC: It's not true here?

MR. LEWIS: I want to ask him about it and then I will give you a copy of it.

MR. DUBUC: You want him to comment on it out of context?

MR. LEWIS: I want to ask him if he --

MR. DUBUC: He is not going to comment on it out of context. He is going to want to see it.

MR. LEWIS: He won't comment on it?

THE WITNESS: Those are articles written years

ago and we have learned a lot of things along the way that we have been doing in that area; so I just wrote a chapter as a matter of fact, for a textbook. There have been several things that have been written since that particular article.

BY MR. LEWIS:

Q I want to know whether you said it or not, Doctor. You seem to want to argue with me, and I am asking you a very simple question. You either said it or you didn't say it.

A If it's written in the article, I said it.

Q I have an article.

MR. DUBUC: What is the date of it?

MR. LEWIS: Page 999.

MR. DUBUC: What is the title and date?

MR. LEWIS: Surely. The Recent USAF Experience

With In-flight Dysbarism by then Lieutenant Colonel Charles A. Berry, USAF.

MR. DUBUC: Dated when?

MR. LEWIS: August 1962.

BY MR. LEWIS:

Q Now, firstly, these episodes that you described were with respect to healthy adults; is that correct?

A Correct.

Q In other words, airmen that passed their flight physical?

A Correct.

Q And I believe that there is a quotation which starts, "The bulk of the incidents occurred at cabin altitudes between 25,000 feet and 35,000 feet. Significantly, however, eight episodes were reported between 20,000 and 25,000 feet. Our warning should extend to this low altitude. The one incident below 20,000 feet was reported with a cabin altitude of 19,500 feet and ambient altitude of 26,500 feet."

You said that at that time, did you not?

A I am sure I did, if you're reading from it.

Q I will warn you that I have read it as good as I can read it.

A Then I said it.

Q Then on the same page you said, further down, and I appreciate that I haven't read everything, but starting with the paragraph, "In view of these findings, we should all strive to impress air crews of the danger of the exposure at cabin altitudes in excess of 20,000 feet."

Did you say that?

A If it is written in the article, I said it.

Q And at that time in August of 1962 or whenever you read the -- correction: wrote the article, did you feel that air crews should be warned of the danger of exposure at cabin altitudes in excess of 20,000 feet?

A You have to understand the conditions that produced this. The conditions that produced it are conditions in the individual and the time duration spent at that altitude. And I think if you would look at those things, those individual cases, I don't remember. That has got to have case reports, too, in that one, as I remember that particular article --

Q You say, for example, excessive weight would be a predisposing factor.

A Weight, age, exercise, what you're doing, activity.

Q You don't know whether babies are more or less inclined --

A I do not. But I would say from the evidence that we know about age making the risk much greater, weight making the risk much greater, all of those factors mean that I would say from that that babies would be less susceptible than without.

Q You're not making that -- that is not a scientific conclusion, is it, Doctor?

MR. DUBUC: That is his opinion.

MR. LEWIS: No. I am saying, are you suggesting that is a scientific conclusion?

MR. DUBUC: A medical conclusion?

MR. LEWIS: Please let me ask my questions.

THE WITNESS: That is my medical conclusion. If I were asked for an opinion today as to whether I would believe that, I would have to say yes, I would believe that. I have no experimental data to back that statement.

BY MR. LEWIS:

Q Absolutely none?

A Absolutely none.

Q No substantial pediatric experience?

A Pediatrally, I have no pediatric data. I have considerable experience with adults to say that. I do not have any pediatric data to back that statement, correct. Zero.

Q So children could present exactly the opposite as you have surmised; isn't that so?

A I would doubt it greatly but I can't say it would not.

Q When you say body weight, sir, you are speaking of somebody that is fatter -- isn't that correct? -- as opposed to gross size?

A Yes.

Q In other words, you could have somebody that was actually seven feet tall and not be overweight; isn't that so?

A That is correct.

Q You could have an adult that was five feet tall and might be greatly overweight?

A One of the things concerned is the amount of body fat.

Q So if, for example, we had a fat baby, a fat baby would be more inclined toward dysbarism than a skinny baby?

A I think that is a fair statement.

Q I just want to know what your conclusions were.

A Correct. If you had more fat, a fat baby would be more susceptible than a skinny baby.

Q Babies run to a greater percentage of body fat as opposed to muscle and bone than adults do; isn't that true, sir?

A Well, I think probably as a general statement,

there is probably more fat, I think. Again, I haven't seen all of these kids. If you're trying to talk about these particular kids. . .

Q Kids, babies in general. There are people that know a great deal about these babies.

MR. DUBUC: Your question is assuming these babies are as fat.

BY MR. LEWIS:

Q Normal babies, ordinary babies, just general babies; they run fatter in the relationship of fat to muscle and bone than adults do?

A The percent of body fat compared to adults?

Q Yes, airmen or the kind of people that you ordinarily have in your high altitude situations.

A I don't know. I really do not know the total body percentages of baby fat. I do know adult percent body fat. We measured that and I majored in that in my practice, too. But in the skin folds, taking underwater weight measurements.

Q But if babies, one-year-old babies, for example; what do you understand to be the age group here?

A Of these children?

Q Yes.

A I think these children --

MR. DUBUC: In the troop compartment?

MR. LEWIS: Yes.

MR. DUBUC: Or the whole aircraft?

THE WITNESS: The troop compartment, very young children.

BY MR. LEWIS:

Q What was the average age?

A They were -- I have seen pictures of them. They were in an age like nine months to two years, something like that.

Q If we assume an average age of around one year, one-and-a-half years, something like that, recognizing that there were some older and younger, maybe, if we assume an age about that, ordinarily human beings of that age are or have a greater proportion of fat to their body weight than air crews, do they not?

MR. DUBUC: Wait a minute. Your question is saying --

MR. LEWIS: If he doesn't know the answer, Mr. Dubuc, there is no point in objecting or debating it.

MR. DUBUC: I am objecting to the form. He says he doesn't know. You're saying an average age of

one-and-a-half years of the people in the troop compartment and then you say on an average kid of that age. You see, that is inconsistent.

MR. LEWIS: No, it is not.

MR. DUEUC: You're assuming the average kids.

MR. LEWIS: I am trying to find out what he knew. I am trying to find out what he knew about their average, about their age, just -- and then I said, too, if you take these children, babies of that age, and we will say between one and one-and-a-half years of age, just babies in the general sense of the word "baby," what relationship does that population of babies have of fat to muscle and bone as opposed to air crews, which is something that he does know something about. And he said he didn't know.

THE WITNESS: I have not made that comparison.

BY MR. LEWIS:

Q So you don't know.

MR. LEWIS: Then I don't understand what the point of your objection was.

THE WITNESS: I have not made that comparison. I can't tell you that.

Looking at the pictures of the babies on there,

I would say there is not much body fat on those babies on this airplane.

BY MR. LEWIS:

Q How many pictures of babies have you seen?

A I don't remember. I saw quite a few kids sitting in seats done up this way, and they all looked -- quite a few.

Q How many?

A I honestly do not know.

Q Tell me what "quite a few" means to you -- 15, 20, 30?

A I think I have seen 20, 15 or 20.

Q Children sitting in seats?

A I think so.

Q And we're speaking of children in the age bracket that we discussed, babies?

A Right. And I saw some older children sitting alone.

Q Would you produce the pictures that you saw with the 15 or 20 babies? I don't know of any pictures. The only pictures I know of, there was one picture that had children seated in a C-5A seat and I believe there were four or six children in that picture.

MR. DUBUC: Pictures he has seen or the pictures you obtained and marked as exhibits? I don't know the numbers of those pictures.

BY MR. LEWIS:

Q He hasn't seen any pictures that we don't have.

A That is correct. I really have not seen -- I don't know what pictures you have. I can't say that.

Q You have seen a large number of babies?

A My recollection of looking at those pictures, I have seen pictures of a number of babies and I couldn't tell you --

Q Seated in separate -- strapped in seats, strapped in seats?

A Correct.

Q And plus some children seated alone, the older children seated along the wall?

A Correct.

Q I represent to you those children were in the cargo compartment.

A I know that. Correct.

Q Now, do you know the name of the women that died in the troop compartment?

MR. DUBUC: In the troop compartment?

MR. LEWIS: Yes.

THE WITNESS: No, I do not remember the name of the woman.

BY MR. LEWIS:

Q Do you remember in any of the testimony that you read, anybody discussing her, where she was, who was holding her hand, and so forth?

A One of the nurses I think was holding a baby, but I do not remember where she was. There was some --

Q Who was that? Feel free to look at your notes.

A I have some -- just looking at the names on that, I have some recollection and it may be Neal.

Q Is it your testimony that Neal --

A I do not know for a fact.

Q Nurse Neal was holding the dead woman's hand?

A I don't know that for a fact. I remember reading somewhere in the testimony that someone who went -- are you saying after she was dead or what?

Q Before she was dead.

A Of holding a woman's hand and discussing her own fears with this woman.

Q They were both frightened?

A They were both frightened of the landing.

Q Where was that woman located prior to impact?
In other words, was she between the seats or in the aisle?

A I am not positive where she was.

Q You have any recollection where she was?

A All I have is a recollection that she was forward. I remember this nurse was forward where Aune was. I don't remember for sure whether she was in the aisle or in the seats, as a matter of fact.

Q Would it make a difference if she was between the seats and she was killed?

A Would it make a difference? How? Would it change my opinion?

Q No. I am sure nothing will change your opinion. I am asking you if it is something that one would consider in arriving at a conclusion with respect to the forces present in the troop compartment.

A Well, it is my impression from everything that I have read, without concluding anything about that woman, that anyone who was killed in that troop compartment, like the man who was --

Q Please answer my question.

MR. DUBUC: He is trying to.

MR. LEWIS: No, he is not.

THE WITNESS: I am trying.

MR. LEWIS: I will withdraw that. You are trying.

BY MR. LEWIS:

Q I would appreciate it, Dr. Berry, if you would answer the question and then explain it in length, if you desire.

MR. DUBUC: He is trying to answer your question.

MR. LEWIS: My question was --

MR. DUBUC: I am not interrupting. I am letting him answer the question; that is all. He doesn't have to answer it the way you want.

MR. LEWIS: He has to answer the question.

MR. DUBUC: He may not understand the question. That's another problem.

THE WITNESS: State the question again.

BY MR. LEWIS:

Q I will be happy to state it again.

MR. LEWIS: Would you read it, Mr. Reporter?

(Portion of the record referred to was read by the Court Reporter)

THE WITNESS: I am not sure I know what the question is.

MR. DUBUC: Maybe we better restate it.

BY MR. LEWIS:

Q I will be glad to state it again, sir.

My question is, In arriving at an accurate -- I will emphasize the word "accurate" -- conclusion as to the forces, physical forces, present in the troop compartment (which might or might not have the capacity to cause injury to human beings), would it be important to know what happened to a passenger like the woman that died, where she was when she died?

MR. DUBUC: Where she was when she died?

THE WITNESS: She was in the front of the airplane when she died.

BY MR. LEWIS:

Q I am asking you more precisely.

MR. DUBUC: The question doesn't ask it precisely. That is the answer to your question.

BY MR. LEWIS:

Q She was in the front of the airplane. I am talking about whether she was -- where she was located, if she was located between the seats, sir, or in the aisle.

MR. DUBUC: When?

MR. LEWIS: At the time prior to impact.

MR. DUBUC: That is the problem.

MR. LEWIS: Before she died.

MR. DUBUC: Do you understand the question?

THE WITNESS: If she were not in the aisle, if they were between the seats and still were killed, is your question, as I understand it. Would that make a difference to me?

BY MR. LEWIS:

Q I am not asking if it would make a difference to you. I am asking would that be something that an investigator would want to know in arriving at a correct conclusion?

A I think that would be a helpful bit of information to have, to try and -- yes, I think that is a piece of the puzzle one should have.

Q And it would -- another part of the puzzle would be the specific injuries that she received. In other words, the bones that were broken and the places that she was injured?

A Well, I am not sure that is really as important. We have gone through that earlier today, Mr. Lewis, and I am not -- again, I am not trying to argue with you, either. I am trying to explain that I think that what the specific

injuries are, in this particular instance, the way we're trying to look at that overall situation, I don't think those specific injuries are of that import as they would be in a different kind of an aircraft accident here.

Q Dr. Berry, you have heard the expression, "Figuras don't lie but liars figure." I am not suggesting either Dr. Gaume's engineer or Mr. Edwards is lying, but they are human and are capable of making a very profound mistake.

For example, the engineers that designed the C-5A made some kind of mistake because it blew open.

MR. DUBUC: Note my objection.

BY MR. LEWIS:

Q I am just illustrating all engineers are not --

A I don't think all engineers are perfect. I know. I have worked with them too long to think that.

Q There are calculations that they made about the G-forces that can be challenged by physical evidence of a contrary nature. That is all I am suggesting. You agree that is theoretically possible?

A That is theoretically possible.

Q And the appropriate way to proceed to understand what happened and one way to check the calculations, isn't it?

A Well, yes, you might do that. I think that what I did is, as I say, I looked at what we have for the number of people, what has happened to individuals. I think if you look at the people who were injured, regardless of what injury occurred, versus the ones who were not -- and we have talked about some of those who were in the aisle and those who went forward and those who didn't. The ones in the aisle who didn't go forward -- I think that it's very clear, I think there's enough of a preponderance of evidence in that to say, again, that you cannot -- you're not going to go anywhere. You're hanging on; you can't hold on for more than 2 G's.

Q Well, you could be mistaken about some of those details and so could the people that --

Off the record.

(Discussion off the record)

MR. LEWIS: Back on the record.

BY MR. LEWIS:

Q Was Dr. McMeekin at the conference that you were at?

A Yes, he was.

Q Do you know him?

A I had met him sometime previously. I cannot

place it but he had met me sometime or another and, you know, in passing at some meeting or something. I did not know him before that meeting.

Q Have you ever read any of his papers on accident reconstruction from analysis of injuries?

A No.

Q Are you familiar with the technique of accident investigation from the analysis of the injuries?

A Yes. That is what every live surgeon is involved in when they investigate an airplane accident.

Q Would you describe the technique?

A I don't think McMeekin did that technique.

Q I am not going to --

A I think it was before he was born.

Q It may be. Are you -- Is that how you think it should be done?

A What is normally done, what we train our people to do as flight surgeons, investigators of aircraft accidents, is to try to determine where -- in looking at the human factors part of the thing is try to determine where, if it is a death, to determine -- even part of a body, and so forth, we want to learn as much as we can from where those particular things are. We can ordinarily do that by

analyzing tissue -- we do everything that is possible to trace that back to exactly where that person was. If you have certain impacts, for instance, that can be seen on the body, you try to figure out what it was that made that particular impact and that helps you determine some of the factors of the accident itself.

Q Is that the procedure that should be followed by someone in this analysis of what happened in the crash in order to give an opinion?

A If you're going to try and go back and prevent crashes from happening, that is why that is done. It's a part of flight safety to try to learn from an accident so you will have no other accidents occur. You reconstruct the accident.

Q It also tells you -- it enables you to understand the forces involved in the accident, doesn't it?

A What happened?

Q What happened, which is included in what happened, isn't it, Doctor?

A It may well do that. Sometimes it does not at all.

Q I understand. That is the objective, in any event. That is what you tried to do in this case?

A We tried to look at that and, again, I want to say that the thing that I am really looking at in this case --

Q I didn't understand that you gave an answer. Is the answer yes, that you tried to do that in this case?

A I would like to explain.

Q I don't mind.

A Yes, that is what I tried to do. I think it should be clear in this case it's my opinion that what was being asked here was that I was to look at the actual facts, the physical facts of what was happening here and try to say, as a result of these facts, what could or could not have occurred. Would these produce irreparable brain damage as far as these children are concerned? That is the kind of thing I was asked to look into.

Q I understand that. You were analyzing the crash to see whether the children were injured in the crash, the whole accident environment.

A Right. No children were -- no children in the troop compartment were injured in that crash.

Q I understand that is your view.

A Right.

Q I am trying to find out the way you went about it.

A That is what I did.

Q And you did -- Did you do an accident reconstruction in order to analyze this?

A You mean did I try and reconstruct?

Q Did you investigate the situation to try to -- did you work from --

A I was not a part of the investigating board of that accident. I did not investigate the accident. The first I ever heard about it was, as I told you, in July.

Q I understand you entered it in a later phase. My question is, Did you undertake to try to determine what forces were present from analyzing the injuries?

A Yes. And in doing so, I did it -- as I told you, my conclusion was that I agree with the facts of the 2 G's. I think that is the dominant thing that impressed me. People couldn't hang on for the 2 G's and I feel very comfortable with that.

Q But you didn't -- Do you know the principle of analyzing the odd injury?

A I have seen no autopsy on these people and I don't know if one exists.

Q Dr. McMeekin in his --

A McMeekin?

Q McMeakin, M-c-M-e-e-k-i-n.

A Right.

Q Robert R., says in his conclusions and recommendations as to how to go about such an analysis of the type he did says, under F, "Be careful to recognize the 'odd' injury, the case that stands out from the others." Is that an important principle in this kind of analysis?

A I think if you have a real question, that is, what the cause of an accident is, then yes, I think that is perfectly true. I don't think there was really that question about a cause of this accident. The cause of the accident was pretty clear.

Q I am talking about what forces were present in the troop compartment, which is the question before us. Isn't that right? Is that what you were trying to determine?

A The forces in the troop compartment?

Q Yes.

A Yes.

Q Didn't perhaps -- whether or not they had the capacity to cause injury to babies, isn't that one of the questions?

A Correct.

Q Now, in order to do a thorough job and be fair

to everybody, in that kind of investigation you would, among other things, want to recognize the "odd injury" case that stands out from the others, wouldn't you?

A I didn't write that. That is Dr. McMeekin's. If I were looking for -- I did not feel that that was necessary in the things that I was doing for this particular accident, for the reasons that I have already described. But I think there are other accidents where I think that would be very important to do.

Q Now, you --

MR. DUBUC: Can we take a break?

(Recess)

MR. LEWIS: Back on the record.

BY MR. LEWIS:

Q Now, Doctor, did you establish a plan of action in your analysis of the accident and in arriving at what forces, if any, were inflicted on the children in the troop compartment?

A What I decided to do was to look at what the majority of the people, what had happened to the majority of the individuals within that compartment, the fact that they were indeed restrained and were, as far as the infants were concerned, and were not only restrained but had rearward

facing seats, the fact that the people who -- then I analyzed the people who, adults who were not in seats, obviously, and adults who were not in seats that were hanging on and were not hanging on and what happened to those individuals.

So I think that in doing that again you reach the conclusion that people who lost hanging on or couldn't hang on for some reason or another were people who were indeed the ones that became injured.

Q So your whole thesis then depends upon the hanging on theory.

A I think that is correct.

Q And if you're wrong there -- in other words, if they weren't behaving as you understand they were behaving, then your conclusions might well be wrong with respect to the impact forces?

A If they were not behaving then and looking -- because those conclusions are -- those conclusions and those views jive with the calculations that have been done of those forces, also.

Q I understand that.

A That is true; if all of those went out the window, obviously my conclusions could be wrong, too.

Q Now, how did they hang on if there was --
Strike that.

You say there's people that can hang on to the point of 2.0 G's; is that correct?

A Roughly 2 G's.

Q Two G's. Is there any difference between men and women?

A As a matter of fact, there might be less for women.

Q Is it?

A Well, I don't know that. As a matter of fact, I did some looking, trying to find out because we do know that there have been some strength measurements made with men and women and, in general, women have less strength, particularly less strength of the upper arms, of the arms, than men do.

Q I can understand that. I am just asking you, is it more or less than 2 G's for women?

A And they might -- they would say they would go less G's.

Q Do you know?

A Do I know? I am just telling you that I do know that women have less strength than men. We have measured

that, particularly in female astronauts versus male astronauts.

Q Have you measured the G's that a woman can hang on at?

A I have not done that.

Q Now, if the peak G's was 5 G's, rounding it out, as Dr. Turnbow says, how did any women hang on?

A Well, I think that is part of the -- that is one of the things, if you look at this, why I have trouble with the peak G business here, I think the peak G business were for such short periods of time, I think that again you can't say G and a peak; you have to say how long, what was the G, what was the rate of buildup and all that sort of thing.

Q Are you saying that women, in your opinion, can hang on for any duration of G force of -- just by their hands -- of 4.6 or whatever?

A I think that depends on if that was a very -- again, a sustained G, they could not.

Q How long could they hang on at 5 G's?

MR. DUBUC: At 5 G's?

MR. LEWIS: He told me first they couldn't hang on, only that 2 was the maximum for women and probably

it was less, as I understood him to say. Now he's trying to explain away 5.

THE WITNESS: No, I am not really trying to explain away 5. What I am trying to say is I think when we talk about these peaks, we're talking about -- you're talking about fractions of seconds.

BY MR. LEWIS:

Q Are you saying women can hang on for 5 G's for fractions of a second with their arms? That is the condition you're trying to describe, isn't it?

A Yes. They were hanging on with their arms.

Q And not braced in any way?

A They were hanging on their arms on both sides of the thing.

Q And not braced any other way?

A Correct, as far as I know.

Q That is your understanding?

A As I understand it.

Q The premise on which you reached your conclusion?

A They were on their knees in the aisle of that vehicle.

Q And not braced with their feet or any other way; right?

A There were some who were not braced with their feet or any other way.

Q It's the ones that were not braced except by their hands that allows you to reach the conclusion that you have reached; isn't that your point?

A (Positive gesture)

Q You will have to answer.

A Right; that is correct.

Q Now, my question is, Are you saying that women under these circumstances can hang on for any period of time at 5 G's?

A Well, I am trying to think what the data -- what we had for the bracing data thing, how we did that. I am trying to recall the way that those data were obtained, and I think in the direction that we're talking of, the -- again, I think that you have to look and I would have to look at the time sequence again, and I do not remember the time sequence, the amount under the curve, how much they were, the time, and the G peak are the two factors that determine that and I do not remember that exact amount and I would have to look at it.

Q Could you, in forming your opinion -- Strike that.

As I understand your thesis, you say that if a woman could hang on by just using her hands --

A It couldn't have been over 2 G's.

Q Couldn't have been over 2 G's; right?

A That is right.

Q And I am trying to get the thesis.

A Correct.

Q So that is the point that you were making. And then you went from there; right?

A Again, I think we have got to say okay, and that we need to look at that curve.

Q My question is, when you came to this and you base your other conclusions with respect to the amount of G-forces present in the troop compartment on that particular phenomena -- right?

A Right.

Q How long?

A Along with the determinations that were made by the engineers and the discussion that was done about what the actual track of that troop compartment was.

Q You don't think that the engineer for Lockheed Aircraft Corporation and the engineer for the -- who works through the physician for the McDonnell-Douglas Corporation

are exactly unbiased, do you?

A I would hope that anybody -- I am similarly not biased. I would hope that anybody that is reporting here is saying what they honestly believe and calculating what they honestly believe. If you are implying that they're calculating something to say that it's got to be this way to protect the company, then I don't buy that. I certainly do not.

Q You have never seen that happen?

A I am sure it can happen. I am sure that it could happen.

Q I am not speaking of you, Doctor. I am speaking of other people. You understand that companies have been known to try to protect their own interest; isn't that right?

A I have seen episodes of people trying to protect their own interest. I do not believe that to be the case in either of these individuals. But that is my judgment.

Q What kind of background do you know about the man that did the work for Dr. Gaume? Do you know anything?

A I know Dr. Gaume very well. I have known Dr. Gaume for years, and I do not know anything about the man other than what Dr. Gaume has stated in his report.

Q Do you know that he works exclusively for defendants? I am speaking of the engineer that did the work.

A No, I did not know that.

Q Did you know that Dr. Gaume has testified only for and analyzed for defendants?

A I don't know that he's even testified before, so I am not aware of that at this point.

Q In his work for analyzing medical situations in conjunction with this engineer, that he has worked exclusively for defendants; did you know that?

A No, I did not know that, but I know Jim Gaume and I think Jim Gaume is an honest man and I think he would try and tell you what he really believed.

Q So, in any event, in essence, the critical point, whether or not the women were able to hang on as you describe with their hands, and if that is not accurate, that would cast substantial doubt on your theory; is that right?

A That would cast some doubt on my theory.

Q Now, how long can a woman hang on at 2 G's with her hands only?

A I think at that level, up to the 2 G level, I think she -- there are some experiences -- I can't remember

the total length of time that has been done. It could be a long period of time that she could.

Q I don't understand from a substantive point what a long period of time is.

A It could be a matter of minutes -- okay?

Q How many minutes?

A I do not know.

Q Did you consider that?

A I would have to go back and -- certainly it was longer; the period of time I have seen that they could do this is longer than any period of time that was done here with his as we went through that a little while ago, the amount of time in this particular slide.

Q Could a woman hang on for ten minutes or more?

A Yes, I think that a woman could hang on for ten minutes or more if it's 2 G's for ten minutes.

Q Could she hang on for ten minutes at 3 G's?

A I don't think so.

Q Could she hang on for two minutes at 3 G's?

A I don't think she could hang on for over 2 G's.

Q Could she hang on for one minute at 3 G's?

A I think that would be a matter of seconds at

Q So if Dr. Turnbow is correct, and he is an authority in aircraft accident engineering is he not?

A Yes, he is.

Q If he is correct, there was a peak G load of 5 G's, then none of the women should have been able to remain in the aisle, should they?

A That is right; and they did.

Q And they did?

A And they did. So I don't think that he is correct.

Q Either they're inaccurate or he is wrong?

A Correct.

Q If Dr. Gaume's engineer, whose name I don't recall, said that the peak G was 4.5 or six, they couldn't maintain their position at 4.5 or 4.6 G's, could they, in the aisle?

A For longer than seconds, as we have said.

Q That's right. And the period was longer than seconds, wasn't it?

A The period was -- the peak G's were -- that is where I think the difficulty is here. I haven't seen anything that anybody said that the peak G's were longer than seconds.

Q Well, if it was a sharp up and down, that would be a spike, wouldn't it?

A That's right. And that is -- you're talking about less than seconds. You're talking about tenths or hundredths of a second, probably.

Q You could get a serious coup contrecoup injury in a fraction of a second, can't you, in a spike?

MR. DUBUC: Under what circumstances?

MR. LEWIS: I am just saying that.

MR. DUBUC: In a minus X axis?

MR. LEWIS: Yes, in any axis.

THE WITNESS: Well --

BY MR. LEWIS:

Q You say no; I understand that is your view.

A No.

Q How long can a woman hang on, how many seconds or fracture of a second can a woman hang on at 5 G's in that aisle?

A I think that it is periods less than that we're talking; if we're talking about that kind of a peak I think we're talking, she would certainly not be able to hold on for longer than, say, a -- again, I would have to try and look at it, but I would say we're talking about a

matter of tenths of a second; half a second.

Q In all practical -- Strike that.

It is correct, isn't it, Dr. Berry, that in your view and your opinion that if the peak G's did reach between four-and-a-half and five, that those women couldn't have maintained their position in the aisle; isn't that correct?

A No, I --

Q Or any period of time.

A No, I can't say that they couldn't for any period of time. I think that is much more likely that they would not do that.

Q It's more likely than not if there was a peak G over 4, we will say, that those women couldn't have maintained their position in the aisle unbraced for any period of time. Isn't that correct?

A I think that would be very difficult.

Q You're agreeing with my position?

A Yeah, I think that is what I said. I think it would be difficult. I think that for very brief periods, and again I think seconds or hundredths or tenths of seconds, I think that you can stand peaks of G's just like you can for other types of G's on the body. All right?

Q I am just trying to get your opinion on this point.

A Right.

Q And considering the fact that women are less strong than men, as you have just told us, it is correct, is it not, sir, that it is more likely than not that the women in the aisle who claim to be hanging on only using their hands could not have maintained their position? In other words, they would have been jerked free -- for any period of time at an excess of 4 G's?

A Yes, that is true.

MR. LEWIS: That is all of the questions I have. Thank you.

MR. DIBUC: All right.

MR. LEWIS: Let me just ask one more question, please.

BY MR. LEWIS:

Q What channel do you broadcast on?

A In Houston?

Q Yes.

A Channel 2. It's NBC affiliate.

Q Do you maintain a library of your shows?

A Yes, I have.

Q Do you have them at home or in your office?

A In the office, in the office.

Q Is it on film or tape?

A It's on video cassettes.

Q What about VHS or Beta-Max?

A Most of them are on regular three-quarter inch.

Some of them --

Q They're commercial size?

A The commercial size.

Q As opposed to Beta-Max?

A Correct. There have been some particular shows like I did a special on heart disease that was done on the 10:00 o'clock news every night for a week, and that was put on VHS, too, because they wanted to use -- several people wanted to use that for various things. There have been a couple of those things.

Q Would you mind if we -- would you, if we took proper care of them, could we look at those?

MR. DUBUC: Wait a minute, wait a minute.

Is there anything that you broadcast relative to hypoxia, decompression, or G-forces in airplane accidents?

THE WITNESS: Negative. They're general medicine.

MR. DUBUC: General medicine.

THE WITNESS: Things that are preventatively aimed, heart disease.

MR. DUBUC: What is the point?

MR. LEWIS: I just -- maybe I want to see how he looks on the tube.

MR. DUBUC: That is hardly reason for producing it.

MR. LEWIS: It wouldn't be a great burden to you, would it?

THE WITNESS: It's no burden to me.

MR. LEWIS: You defer to Mr. Dubuc.

THE WITNESS: Counsel, whatever he says.

MR. LEWIS: I understand that.

That is all of the questions I have.

(Whereupon, at 5:53 p.m., the taking of the deposition was concluded)

I have read the foregoing 190 pages,
which contain a correct transcript of the answers
given by me to the questions recorded therain.

Signature of the witness

- - -

SUBSCRIBED AND SWORN to before me this _____ day
of _____, 1981.

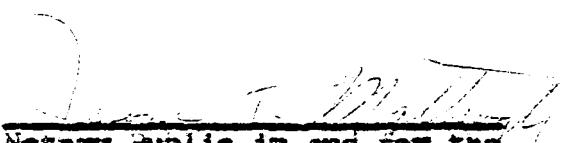
Notary Public

My commission expires:

CERTIFICATE OF NOTARY PUBLIC

COMMONWEALTH OF VIRGINIA)
) ss.
COUNTY OF ARLINGTON)

I, Jerome T. Mattingly, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was recorded by me in stenotype and thereafter reduced to typewritten form under my direction; that said deposition is a true record of the testimony given by said witness; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.



Notary Public in and for the
Commonwealth of Virginia.

My commission expires
November 9, 1984.