

not be inadvertently operated without the pilot's knowledge.

Q Was this co-pilot speaking?

A I do not know who was speaking.

Q Do you know if it was you?

A I know it was not me.

Q Do you see the next line that says: "Disarm the doors, please"?

A Yes.

Q Do you know who was speaking?

A No.

Q Do you know what that phrase means?

A It was probably another way to say the same thing.

I am once again guessing.

Or again, it could be a student saying it one time and an instructor saying it the correct way. I do not know. But I do not know the correct terminology, so I cannot say that that is, in fact, true.

Q Would you look at the fourth paragraph from the bottom of Page 6, please?

(Whereupon, the witness examined the document.)

A Yes.

Q Do you see where it says: "Engineer's report -- in progress"?

A Yes.

Q What does that mean?

A That means that the check list that had been started by the co-pilot, when asked for the -- let me see which check this was -- the co-pilot is the one who said "engineer's report by the way. And the engineer replies: "in progress".

Q That is two people speaking?

A Yes, it is. Yes, that was the starting engines check list. And for whatever reason, the engineer said that he was in progress.

Q Meaning he had not finished his check list?

A He had not finished his check list. So that stops the co-pilot's check list.

Q Because the co-pilot's depends upon completion of the engineer's?

A Of all the check lists, yes.

Q Would you turn to Page 8, please?

(Whereupon, the witness continued to examine the document.)

Q I ask you to look at the following four lines, begin-

ning about halfway down the page.

A Okay.

Q "Door open lights", "Hell, our damned troop or crew door just started screwing up", "and it is on film, too", "I know, that is what worries me". Do you know who was talking during any of these transmissions?

A I put question marks by all three of those.

Q There are four.

A Oh, sorry. "Door open lights" is a co-pilot response to a check list. He is reading; he read "Door open lights".

Q That means that his lights or that he has seen a light indicating a door was open?

A Yes, in a circumstance that the check list is proceeding, he would say "Door open lights" "Off", which was his response -- one, two, three, four, five, six, seven, eight -- eight items later, where he says "Door open lights, off". That was the response that he would have had.

So he said "Door open lights" --

Q Meaning?

A He is waiting to say "Off".

Q For somebody else to say off?

A No, he is waiting to say "Off" when the light goes

off because it is something that proceeds smoothly. When the scanner comes in the aircraft, he closes the door and as all the check lists are being run, and it usually coincides with this point in the check list. So we are talking just a momentary delay.

Q But at the time the co-pilot first says "Door open lights", that means the light is on?

A Not necessarily. It could be out when he says "Door open lights". He could say "Door open lights, off".

Q Well, if he says "Door open lights, off", that means they are off?

A That is correct.

Q If he just says "Door open lights"?

A That was in preparation of giving the "Off" response.

Q Oh, you mean the possibility is he was interrupted before he finished his sentence?

A Yes.

Q Do you recall, from reading this transcript, whether he was asking a question, or whether he was --

A You do not ask questions on a check list. You read the items. So it is not eliciting a response at that time. It is his response.

Q Okay. Well, who says next: "No, our damned troop or crew door just started screwing up."?

A It would be either the scanner who just boarded or one of the loadmasters who are still downstairs.

Q How would anyone inside -- strike that. Where would the scanner be?

A Probably standing in front of the door.

Q Not up with the co-pilot?

A No, standing right beside the door.

Q Okay. Do you recall the scanner or anybody else mentioning a screw-up on one of the doors?

A Yes, but it was so insignificant at the time that it did not register any conscious problem to me.

Q Do you have any idea what he meant?

A No. No specifics, no.

Q Was it possible that this reference was to the aft cargo door?

A Oh, absolutely not. From the way I read this, it says: "Hell, our damned crew door just started screwing up".

Q Well, he was confused about which door it was?

A No, he was not confused.

Q He misspoke?

A He misspoke.

Q Do you recall that from hearing the tape?

A I recall that it was the crew door and they are at opposite ends of the aircraft. I would suppose that my loadmaster could tell the difference.

Q Did you assume at this time that the crew door was closed?

A At which time is that?

Q At the time of this transmission?

A No.

Q But the crew door is open?

A Yes, which is normal.

Q Is the "Door open light" going to be on?

A Yes.

Q The immediately preceding transmission --

A Yes.

Q Has the co-pilot saying "Door open lights".

A Yes.

Q You assumed, I take it, that at the time the co-pilot made that transmission --

A For assumptions, let's suppose that the co-pilot is not looking at the light; he is looking at his check list,

reading the item. And he says, reading the check list, "Door open light" and looks at the light. Now, if it is indeed on, he cannot say "off" and cannot complete the check list, so he would stop at that point until it is, in fact, out. And when it is out, he would start the check list response over again, at the beginning, which is the correct way to do it, and say the entire check list item -- which he did do: "Door open lights, off".

Q Can you make an educated guess whether the remark about the door screwing up was the scanner's remark?

A No, I cannot, really I cannot.

Q Who else could it be besides the scanner?

A It could have been one of the loadmasters on the cord. There are several earphones positions downstairs.

Q Do you see the line just below the section I asked you to read that reads: "Pilot, cargo compartment"?

A Yes.

Q Were you calling the cargo compartment?

A No.

Q Who made that entire transmission?

A The cargo compartment called me.

Q Okay. And all those words were spoken by the cargo

compartment?

A Someone, yes.

Q Do you know why they were calling you?

A I have not read it yet.

Q Go ahead.

(Whereupon, the witness read the portion of the document referred to.)

A Okay. What item did you have reference to?

Q Well, somebody in the cargo compartment was calling you?

A Yes.

Q Did you find out later why they were calling you?

A Yes.

Q Why?

A I said go ahead and someone replied to me: "I am going to give a very, very short briefing and it won't interfere with you".

Q Okay. And what was the subject of that briefing?

A His check list, passenger briefing.

Q Does that show up later on in the transcript?

A I doubt it. It is in his check list.

Q Is the briefing he is giving you reflected in that

one statement of his?

A He is not going to brief me.

Q Who is he going to give the briefing to?

A The people downstairs.

Q I see. So he is just telling you he is going to brief people downstairs?

A That is correct. What it essentially is telling me is that he is not keenly listening to what I have to say and if I want to tell him something while he is doing this, I have got to get his attention.

Q Captain, did you give a statement to Colonel Waxstein in connection with this investigation?

A Yes, I have it in front of me.

Q Okay. Have you read that statement recently?

A Yesterday.

Q Okay. Is that statement true and correct to the best of your knowledge?

A Yes, it is.

Q Do you have any objection whatsoever to our obtaining copies of that statement?

A No, I do not.

Q Okay. Did you give a statement to the Accident Board?

A Yes, I did.

Q Who asked you to give your statement?

A The Accident Investigation Board.

Q Who from the Board?

A I do not recall who precisely.

Q Do you know when this person asked you?

A Yes, it was as soon as we arrived at Clark.

Q How much time elapsed between the time of the crash and the time you departed for Clark?

A The time of the crash and the time I departed for Clark? I left the next morning.

Q Okay. Who was asked to give a statement, to your knowledge, besides yourself?

MR. PIPER: Where?

THE WITNESS: Where?

BY MR. BATTOCCHI:

Q At Clark?

A The entire flight crew, as opposed to including the med techs. I do not remember whether they were there or not.

Q Were you all called into a room and advised that you would be asked statements?

A Yes.

Q Or asked to give statements?

A Yes.

Q And do you know who was doing the talking?

A No, I do not recall.

Q Do you know what was said during that conversation?

A I do not know.

Q Did anyone to your recollection promise you that what you told the Accident Board would remain forever confidential?

A I am sure they did. I had been a flying safety officer and I knew that as a requirement. So I am sure they did or I would remember they did not.

Q Okay. Had you become familiar with the terms of 127-4?

A Yes.

Q Okay. And had you conducted investigations in accidents before?

A No, I held the position in Cameron for about six months. During that --

Q What position?

A Flying Safety Officer.

Q What does a Flying Safety Officer do?

A I ended up mainly processing paper work and putting

out safety bulletins. But had there been an accident, and there was not, then I could have been involved in an investigation.

Q Okay, well, during the course of that time, did you have occasion to learn about the nature of Regulation 127-4?

A I had an opportunity to read it.

Q Did you think you understood it?

A No, not in six months.

Q Well, did anyone ever tell you that you should offer everyone confidentiality during the course of an investigation, even if they have nothing to hide and even if they do not particularly care for confidentiality?

A Yes.

Q So you were to do it indiscriminately?

A Do what?

Q Offer these promises of confidentiality?

A The Accident Investigation reports are to remain confidential.

Q That was not the question. I am talking about offering witnesses promises of confidentiality.

MR. PIPER: Okay. I want to object at this point to any further questions along this line. Captain Traynor has stated that he was a Flying Safety Officer and did not, in the

course of his duties as a Flying Safety Officer, become all that familiar with the regulations. I am going to object to any questions concerning his expertise as to the functions of Air Force Regulation 127-4.

MR. BATTOCCHI: Thank you.

BY MR. BATTOCCHI:

Q Do you remember the question?

A No.

Q Okay. Did you assume that promises of confidentiality were to be made indiscriminately to everyone to whom the Accident Board might talk?

A I would have made that determination at the time, had it happened; and it did not when I was Flying Safety Officer.

Q You would have come to that conclusion?

A I said I would have made that determination at that time. I was not forced to make that determination.

Q In other words, you mean --

A I do not like to suppose what I might have done had something had happened.

Q What you mean is that if the situation arose, you would have made a decision either to offer confidentiality to

everyone or not?

A I probably would have read the regulation and done precisely what it said.

Q Do you recall anything in the regulation?

A No.

Q I think for purposes of this question, I had better get it out. Would you excuse me?

I did tell Oren ten minutes.

Q You would have done whatever the regulations said, is that your testimony?

A Well, within the bounds of my immediate superior, who was the Chief of Safety.

Q If the regulation did not contain any instructions, directing you to offer anybody confidentiality --

A Yes?

Q -- you would not have offered them, would you?

A I would not make that supposition now.

Q Well, you would have done what the regulation told you to do?

MR. PIPER: Objection. Asked and answered. He stated that he would have followed the regulation if he had the opportunity.

BY MR. BATTOCCHI:

Q If you had the opportunity, you would have followed the regulation, is that fair?

A I assume that that is what I would do.

Q And, therefore, if the regulation said: promise witnesses confidentiality, you would have done it?

MR. PIPER: Objection. Asked and answered.

BY MR. BATTOCCHI:

Q Fair?

A I would assume, based on something within the regulation, that I would probably attempt to fulfill the regulation.

Q If the regulation said: promise confidentiality, would you have done that?

A I would attempt to do whatever I had been instructed or ordered to do.

Q If the regulation did not say that, would you not do it?

A I do not see where my supposition is pertinent.

Q I am nevertheless asking you about it. If the regulation did not say that, would you --

A I do not know.

Q Do you have any objection to our seeing your statement?

to the Accident Board?

A Yes.

Q Can you tell me why, please?

A Because it is a privileged document.

Q And who told you it was privileged?

A The Accident Investigation Board.

Q Do you specifically recall that?

A I do not specifically recall who said it, no.

Q Do you recall anybody telling you that?

A I recall that it was said, yes.

Q To you?

A To me, as opposed to -- how else would it have been said?

Q In your presence? Was it said to you?

A Based on the accuracy of many of -- much of my other testimony, I would still have to say yes, it was briefed to me. I do not recall by whom.

Q Do you recall when?

A When we wrote our statements.

Q Well, was that -- do you mean somebody promised you confidentiality at the very time you were writing your statements?

A That would seem a logical place to tell me. I do not remember when I was told or by whom; rather, I probably would have noted that they did not tell me more likely than, in fact, they did, because I expected them to tell me.

Q Did you handwrite your statement to the Board?

A Yes, I did.

Q How long was it?

A Oh, two pages.

Q Okay. Was there anything in that statement that is not in the statement to the collateral investigator?

A The collateral statement is probably more detailed than my statement to the Accident Investigation Board.

Q Did you ever tell the Board anything that you did not tell the collateral investigator?

A Not to my knowledge.

MR. VAN NUYS: I am going to object to that.

MR. PIPER: No, you are not. We are going to recess a minute, okay?

MR. BATTOCCHI: I am about through.

(Whereupon, a short recess was taken.)

MR. PIPER: Go ahead.

BY MR. BATTOCCHI:

Q I just want to make sure I understand your feelings on this thing. The reason you do not want it disclosed is because you feel as a matter of regulation or principle or whatever it should be kept confidential?

A That is correct.

Q But you never told the Accident Board of never said anything to the Accident Board that you have reason to hide, did you?

A No.

Q As far as you know, there is nothing in that statement that incriminates you or embarrasses you?

A No, sir.

MR. BATTOCCHI: No further questions.

CROSS-EXAMINATION

BY MR. DUBUC:

Q Captain, just to follow on with this discussion of the debrief you had back at Clark after the accident, was there a general briefing of the entire flight crew as to what they were trying to accomplish and what they wanted to get in your statements and so on?

A I missed the first part of your question. I am very

sorry.

Q I think you were just testifying about your debriefing and your writing of statements in connection with the Accident Board investigation.

A Yes.

Q I think you said it was at Clark?

A Yes.

Q When you all got back there, did they have a briefing for the entire flight crew and layout some general parameters as far as what they wanted you to do and how they wanted you to do it and so on?

A Whatever they gave us was so general in nature that I, unfortunately, do not recall specifically the information.

Q But there was a briefing of the entire crew where they gave instructions that they wanted a statement and whatever else they wanted you to do?

A Yes, they said please write a statement in your own words -- that sort of thing.

Q Did they have everybody there at that time?

A Yes. It was not monitored.

Q No, no. Just everybody was there -- they got everybody together and gave them a general briefing and then each

one did their statement.

A I do not know that everybody was there, but the majority of us were there.

Q Did that include any of the medical flight crew?

A I was trying to recall that a few minutes ago. I really cannot remember.

Q Do you think that is the time they gave you the explanation of or requirement of 127-4?

A I do not know.

Q Now in connection with some of the questions asked of you yesterday and again today, I believe you referred to the C-5A as an aircraft with substantial redundancy. Do you remember those questions?

A Yes.

Q What did you mean when you meant "redundancy" -- when you said "redundancy"?

A That I felt safe flying the aircraft.

Q And what does redundancy in aeronautical terms mean when you refer to an aircraft or aircraft systems?

A That in a critical system, a back-up is designed or provided for an alternate use -- or for alternate use.

Q For example, several hydraulic systems?

A That is correct.

Q Or for example, alternate electrical systems?

A That is correct.

Q Or for example, alternate methods of operating certain equipment or systems or instruments?

A That is correct.

Q Or in the case of instrumentation, it would include a redundancy as to flight instruments where you could use some instead of all and still have a complete set of instruments, is that correct?

A That is correct.

Q How would you characterize from the standpoint of redundancy, the C-5A in comparison with the other aircraft that you have flown, and you mention in your testimony, such as the C-133, the C-7, C-124?

MR. LEWIS: Are you withdrawing your objection to the relevancy of the other aircraft, sir?

MR. DUBUC: No.

MR. LEWIS: It does not bother you that that is inconsistent with your earlier position?

MR. DUBUC: My objection was as to the C-141. I do not think I included that in the question.

MR. LEWIS: I would then note an objection that counsel is interrogating the witness on areas that he says --

MR. DUBUC: The record will show whether I objected to anything as to the C-133, the C-7 and C-124.

BY MR. DUBUC:

Q Do you recall my question or do you want it again?

A Yes. The C-133 and the C-7 were simpler aircraft.

Q How about the C-124?

A I do not know anything about that.

Q I thought you mentioned this one?

A I did. He asked me if I had flown it. I had been sitting in the seat and flown the aircraft.

Q I see. The ones you had actually flown was a C-133 and a C-7?

A That is correct.

Q Did they have redundant systems?

A To a lesser degree, yes. I am trying to think of an example.

Q Would it be a fair statement -- when you say to a lesser degree, would it be a fair statement that the C-5A had substantially more redundant systems for the purpose of back-up than either of those other two aircraft?

A Yes.

MR. LEWIS: We will stipulate it is more prone to fail.

BY MR. DUBUC:

Q Would you say that the C-5A, from the pilot's standpoint and operational standpoint, is a safe aircraft?

A Yes.

Q The C-5A has been used in cargo missions since its operational inception for a number of purposes, has it not?

A A number of purposes?

Q Well, for example, it is my understanding that it was used quite successfully in connection with airlifting of cargo and so forth to Israel recently?

A Yes.

Q It has been used in the airlifting of cargo and troops to many far-reaching areas very successfully?

A Yes.

Q Is one measure of that success the fact that it can carry a very large payload, cargo or troops?

A Yes.

Q And I think you mentioned you were assigned as the General's Aide in the 22nd Air Force following your tour at

Travis, is that correct?

A That is correct, also at Travis.

Q Was that also at Travis?

A Yes.

Q The C-5's are assigned to the 22nd Air Force, are they not?

A There are C-5's assigned to 22nd and 21st Air Force.

Q Is the 21st on the East Coast?

A East Coast, yes; and the 22nd on the West.

Q And based upon your own experience and also your subsequent experience as an aide to the commanding officer of the 22nd Air Force, would you say that the C-5 has been an operationally successful and safe aircraft?

A I could not make that determination.

Q Who would be able to do that?

A I do not know.

Q Are there such records kept somewhere as to operational efficiency and safety factors and so on? Would that be in the logistics command or the maintenance division or what?

A Would you rephrase the question, please?

Q I am just wondering where -- in other words, what source, a witness from what source would be able to provide us

with that kind of information.

A I do not know what records are kept.

Q Okay. You were asked some questions as to problems you had encountered during the period you were flying the C-5 and you mentioned some. I think you mentioned the flat tires and you mentioned -- I think you mentioned trouble with an engine once or twice and you mentioned some problems with closing troop doors or closing crew doors.

Did you ever consider or have occasion to determine whether those problems were maintenance related or aircraft related?

MR. BATTOCCHI: I object to the form of the question.

MR. LEWIS: Do you mean design related or -- you said aircraft?

BY MR. DUBUC:

Q Do you understand the question?

A Would you restate it, please?

Q Okay. For example, you mentioned the problem of flat tires as one of them.

A Yes.

Q Flat tires can be a function of either wear or hard-linings or perhaps improper installation or whatever, is that

not correct?

A Yes, many things.

Q You mentioned that an engine would not start on one occasion. Did you have occasion at that time to determine the reason it would not start?

A From my standpoint, it does not matter whether it does not start for a material reason or a maintenance reason. It is my determination that it either does or it does not work.

Q You do not follow it any further than that. The maintenance people take care of it?

A That is correct.

Q And you mentioned one time the loadmaster could not close one of the doors. On that occasion, did you ever have an occasion to go in and find out why the loadmaster was unable to close the door?

A Yes. Quite often, it would be an electrical sequencing trouble.

Q How many occasions did that happen to you? That you were unable to close the door, do you remember?

A I do not know.

Q One or more than one?

A I would say more than one, based on the fact that

I am at least aware of the situation and the operation of the doors in my presence is rare.

Q Now, with respect to these kinds of problems, the one you mentioned -- electrical sequencing -- is that a problem that would be related to the manner in which the maintenance work might have been performed in sequencing and that was not correct and that had to be fixed before the doors would close?

A It would be difficult for me to speculate.

Q Before you take an aircraft in your pre-flight procedures, do you have occasion to go in and look at the prior gripe sheets or I guess they are called Form 981A's?

A 781A's.

Q 781A's?

A Yes, I do.

Q How many of those do you usually review before --

A 781's?

Q How far back do you go?

A I read all of them.

Q How many are usually kept on the clipboard or whatever they keep them on?

A Any write-up that has not been repaired.

Q For what period of time?

A Until it is repaired.

Q But for what period of time is the 781 kept on the current write-up sheet? Does it go back to the beginning of time when the aircraft began to operate or is it --

A Beginning of the leg.

Q Of that leg.

A Yes. Well, let me correct that. I am not certain how far back they will go. Corrected write-ups -- a page of corrected write-ups will be removed. I do not --

Q So that is not available?

A So that is not available to me.

Q Are you presently aware of the fact that this aircraft that you flew from Saigon on the day of the accident had had substantial maintenance work performed on it approximately four days before?

A No.

Q Those sheets would not have been on the 781A board, is that correct?

A There are several sheets possible of minor write-ups that do not affect safety of flight or operations. To the point that to review all the fixed -- "fixed" things would be uselessly time consuming. So had they been available to me,

in the forms, I probably would not have read them.

Q Just so I understand this and to see how far back it goes, I am going to show you some 781's that have already been marked as exhibits.

(Whereupon, the documents were handed to the witness for examination; and also to counsel for examination.)

Q These have been marked Exhibits B,C, and D, and they are purportedly 781A forms relevant to this aircraft, upon which maintenance work was performed and it was signed off.

A Okay.

Q Now would these sheets have been on the 781 board summary that you looked at?

(Whereupon, the witness continued to examine the documents.)

A I have not signed any of them.

Q No, those are maintenance sheets, are they not? What I am trying to determine is does a pilot preparing to take a C-5A on an assigned mission, have available to him -- and did you have available to you in connection with your mission -- the prior maintenance sheets for the aircraft so that you can review them to see what work has been performed?

A I do not know. Had they been available, I probably would not have read them.

Q Would any of the crew have read them?

A No.

Q Is there any procedure whereby the pilot, co-pilot or engineer does go back and review maintenance sheets in prior write-ups of equipment discrepancies on an aircraft prior to the time you sign for the aircraft and take it on the mission?

MR. BATTOCCHI: You are talking now about corrected write-ups.

THE WITNESS: Corrected write-ups, no.

BY MR. DUBUC:

Q Only uncorrected write-ups?

A That is correct.

Q Are you familiar or have you heard the term "cannibalization" used in connection with the maintenance function on a C-5?

A Yes.

Q What does that mean to you?

A That is to take one part from an airplane and put it on another.

Q Aircraft?

A Another aircraft.

Q Does it also mean that several parts may be taken from the same aircraft and used on several other aircraft?

A By expansion of the term. Not by my recollection.

Q Do you know if such a cannibalization procedure or concept was in use in the unit to which you were assigned at the time of this accident?

A The procedure has been in effect, as far as I know, for as long as I have been in the Air Force.

Q Do you know the reason why they have this procedure?

A No.

Q Does that procedure have any relationships to the ability of the logistics command or the spare parts system to provide adequate -- an adequate number of spare parts for aircraft?

A I am not qualified to judge.

MR. PIPER: I object to that question. He stated he does not know and he is not a logistics man.

BY MR. DUBUC:

Q Who would know that, do you know?

A No, I do not know that.

Q Did that concept of cannibalization ever come up and

was it ever discussed during the time you were the aide to the commanding officer of the 22nd Air Force?

A No, not that I recall.

Q Did you know prior to this flight that the aircraft you flew from Travis to Clark and then to Vietnam had, in connection with the maintenance work we just described, been the subject of the cannibalization of and then replacement of at least two tie rods and other components in the right hand locking system -- ramp locking system?

A No.

Q Would there have been any procedure or any way for any of your crew if they followed usual procedures to determine that?

A No.

Q Mr. Battocchi referred you to your statement to the Collateral Board, which I believe is in front of you. I do not recall that it has been marked. And, therefore, I would like to mark it. What is our next number -- I.

MR. DUBUC: Would you mark this Exhibit I for identification?

(Whereupon, the document was marked Exhibit I for identification.)

BY MR. DUBUC:

Q Would you take a look at that copy, Captain, that I just marked and see if that is a true and accurate copy of the statement you gave to the Collateral Board?

(Whereupon, the document was handed to the witness for examination.)

A It appears complete.

Q Before we leave this question of the maintenance sheet, in your experience with flying the other type aircraft you mentioned, there were maintenance problems on those aircraft as well, were there not?

A Yes.

Q In fact, there are always some maintenance problems on any operational aircraft that is operated in connection with military operations, are there not?

A I would venture to expand that to all machinery.

Q Right. And it is normal to have the necessity to look at, maintain, in some cases, repair such machinery, including aircraft?

A That is correct.

Q I believe yesterday -- I think it was yesterday when you were asked about problems with the C-5A -- I believe you

characterized the problems, at least most of the problems as merely maintenance problems, is that accurate or inaccurate? That recollection on my part?

A No. I would have to say it is inaccurate because I am not qualified to determine the difference between a maintenance and a material problem.

Q We will take that up with the maintenance people when they testify.

A Please.

Q In connection with your duties when you were flying C-5's, did you ever run into any occasions where there may have been a tie rod on the aft ramp locking system bent or damaged by a forklift or any other loading equipment?

A The scenario seems entirely possible. I do not remember any such incident.

Q Okay. Have you ever discussed the possibility or the existence of such circumstances with any other pilot?

A No.

Q Have you ever discussed the possibility or been aware of the damage to a tie rod from somebody standing on it?

A Until the incident, I was not acutely aware of the tie rods.

Q They are recessed, are they not, as I think you mentioned this morning? The locking system --

A When the door is closed --

Q They are recessed?

A -- they are recessed.

Q And when the door is open, they are still recessed to the extent that they are not in the open; they are off the ramp area by an inch or two, are they not?

A I am not qualified to make the judgment. I am sorry.

Q Let's take a look at your statement, which has been marked Exhibit I for identification.

A Okay.

Q And I note in there that you reported a shut-down of the Number Two Engine en route to Clark Air Base. Did you ever determine what the problem was with the Number Two Engine?

A No, I did not.

Q Do you know if it was corrected?

A No, I do not.

Q Do you know whether it was an engine problem or whether it was an instrumentation problem?

A The write-up was not in the forms when I went to fly the -- it was corrected in the forms.

Q And for the same reasons you have already told us, the corrected write-up is not --

A By me, it is considered repaired.

Q Now, the write-up on the co-pilot's windshield, however, which appears in that same paragraph -- third paragraph of your statement -- would have been in the forms, would it not, because that had not been corrected?

MR. BATTOCCHI: As of what time?

MR. DUBUC: The time he landed at Clark.

THE WITNESS: At the time I left Clark, the write-up would have been in the form?

MR. DUBUC: I will withdraw the question.

THE WITNESS: Okay.

BY MR. DUBUC:

Q It is indicated in that paragraph that in addition to the Number Two Engine being shut down en route to Clark, you also wrote up something about the co-pilot's windshield?

A That is correct.

Q That was not corrected at Clark, was it?

A Yes, it was.

Q I am sorry. Apparently you wrote up the discrepancy on the windshield before you got to Hickam?

A No, I wrote up the discrepancy -- the windshield just prior to take off from Hickam.

Q All right. And then you arrived at Clark and it was corrected there?

A That is correct.

Q What was the problem with the co-pilot's windshield?

A The windshield heat was arcing.

Q Do you have a criteria of items for missions which are considered go and no-go items?

A Yes, there was one in effect at the time.

Q And I gather the pilot -- co-pilot's windshield would not have been one of those items?

A I do not recall.

Q Which would have justified aborting the mission?

A I do not recall what it said.

Q In the next paragraph, there is a statement that you suggested that the cargo you were carrying from Travis be re-loaded on another aircraft. Do you see that sentence?

(Whereupon, the witness continued to examine the document.)

A Yes.

Q What was the reason for that?

A The -- due to my lack of maintenance understanding, I had supposed that there was a long cure time on fixing the window, when, in fact, that was not true.

Q I see. When they told you they could fix it --

A No problem.

Q And the suggestion in the same paragraph that there was another crew available for the mission, was that based upon the same assumption on your part that it was going to take some time to fix your windshield?

A I am sorry?

Q Well, the next sentence says: "I was advised that there was another crew eligible for this mission; however, depending upon maintenance, my crew might take the load into Saigon."

A Okay. As I am sure you are aware, the MAX system is somewhat of a pony express in that the aircraft continue and the crews must crew rest. So it is possible with a short ground time to refuel the aircraft and a new crew take that aircraft to its next destination.

My offer there was based on the fact that this aircraft would probably depart before I did.

Q Was that another C-5A aircraft?

A I did not ask.

Q Would an aircraft other than another C-5A have been able to carry the cargo you were carrying -- the same amount?

A I do not recall the load? Unless it were something obviously huge, I could not have made that determination.

Q Do you recall whether you were carrying tanks or machinery or --

A I recall we were not carrying tanks.

Q Were you carrying howitzers or guns? There has been some testimony to that effect.

A Yes, I think so. I am really not --

Q And were you fully loaded en route from Travis to Hickam to Anderson to Clark?

A It should be a matter of record. I do not recall.

Q Do you recall going down and looking at the cargo deck at any time during that period?

A Cargo deck -- the floor?

Q Yes.

A I must routinely check -- I do not know if I must or not. I do as a matter of procedure walk through the cargo after each time that we are about to go someplace. I do not know if it is required to do that or not. It may have been.

But I did it at any rate to see if there was anything obvious to me that -- just blatantly obvious -- a tied on strap that had come off or a chain that had been not tightened or minor things.

Q Do you have any recollection whether the cargo floor was fully loaded or substantially fully loaded?

A No, I do not recall.

Q With howitzers during the trip from Travis to Clark?

A You see, if they alert me for a mission to fly an airplane from Hickam to Clark, I will fly it with whatever they put on it. It is not material to me to know what, from one mission to the next or recall what it is or how much it was.

Q Would it not be material to know the weight of the cargo for the purposes of figuring your weight and balance and so on?

A Yes, the engineers and loadmasters would have to know that information to compute the flight data to give me.

Q They would do that? You would not do that?

A That is correct.

Q I see. In this case, your flight engineer would have done that, is that correct?

A Done what?

Q Computed the weight and balance, so he would be the person to know how much weight you were carrying?

A No. No, the loadmaster should do that.

Q The loadmaster would be the one.

A The loadmaster would compute the weight and balance.

Q Okay. We went through who the loadmasters were and there was some question as to who they were. Just so we can straighten out that fact, on this mission, the flight authorization, which is part of the collateral report, lists -- I think you mentioned Sergeant McAtee, Sergeant Engels. Those were --

A Engineers.

Q -- engineers.

MR. BATTOCCHI: Could we have a page number, Mr. Dubuc?

MR. DUBUC: It is Tab 53.

BY MR. DUBUC:

Q It lists a Sergeant Dionne. Was he a loadmaster?

A I will list the order in just a moment. I will attest to the accuracy of the crew positions, to the best of my knowledge, at the time, that that was correct.

Q Okay. Who were the loadmasters?

A The ones that have "LM" following their names.

Q All right. That would be whom?

A Under "crew position". It would be in this case

Dionne, Perkins, Bradley, Aguillon --

MR. PIPER: Dionne was --

THE WITNESS: Well, it does not suffice to say that -- okay. You are right; my eyes are crossed. Yes, Dionne was a second engineer, according to this. Then Perkins was the first loadmaster; Bradley is a loadmaster; Aguillon; and Doughty; and Sergeant Payne was a flight examiner/loadmaster; Sergeant Parker was a loadmaster; and Sergeant Snedegar was a flight examiner/loadmaster.

BY MR. DUBUC:

Q What is the difference between a loadmaster and a flight examiner/loadmaster?

A One is authorized to give checks.

Q And was somebody being given a check on this mission?

A Yes.

Q Who was being given a check, do you recall?

A No, I do not. No, I cannot tell from the orders -- wait a minute, maybe I can from the code.

(Whereupon, the witness examined the documents.)

A Let me see. It is not on here. Let me reverse the order to see. I cannot tell from this.

Q Okay. I think you mentioned in answer to one of Mr. Battocchi's questions, I think you indicated you had not read the collateral accident report, is that correct?

A No. I have seen it; I have not read it.

Q Have you read any part of it?

A My statement.

Q Is that the only thing you read?

A That is the only thing I can remember reading. I thumbed through it here the last couple of days.

Q Did you have occasion in the last couple of days to read the narrative summary which is the first tab? Tab A, I guess.

A I honestly do not remember whether I read it or not. If it was available to me to read, I do not know that I read it.

Q Did you ever have occasion to read the released portions of the aircraft accident?

A No, I did not know there was one.

Q Copies of that would have been sent to the 22nd Air Force, would it not?

A Perhaps.

Q During the time you were assigned there, do you recall whether you had an opportunity or the occasion to read the Aircraft Accident Report, the released portions of it?

A No, that in all likelihood would have been a closed communication between the commander himself and the safety people.

MR. PIPER: Are you through with this?

MR. DUBUC: Yes.

BY MR. DUBUC:

Q This has already been marked and is a copy of the narrative portions of the Aircraft Accident Incident Report. Do you think you had any occasion to possibly have read this during the last few days?

A What is it?

Q The narrative of the Aircraft Accident Report.

MR. BATTOCCHI: Are you sure it has been marked?

MR. DUBUC: Exhibit 4 for identification.

MR. PIPER: Are you sure you have not seen it?

THE WITNESS: No, I have not seen it here, no, sir. No, I have never seen this. I do not believe that has ever been presented to me at all.

BY MR. DUBUC:

Q There is a reference in both the collateral report, in Paragraph 9, which you indicated had been available to you, and also in Paragraph 34 of this Exhibit 4, the fact that there was some student crew members aboard your crew?

MR. PIPER: Before he answer that, I would just like to make a statement. This has been available to him just as he is sitting here. He has not been given it to read or study. The only availability he has had to it since he has been here is when he has been sitting at my left here and perhaps being bored by the questions --

BY MR. DUBUC:

Q There is a reference in there to the fact that there were some primary crew members fully qualified and also some additional crew members who were flying in an authorized student status under proper supervision of a qualified instructor. Do you recall which crew members were in that student status?

A I am sorry. I do not remember what students were there.

Q Do you know how many there were?

A No.

Q Were any of them loadmasters?

A Yes.

Q Were there more than one?

A I know there was at least one.

Q Were any of them engineers? Or were they all load-masters?

A I think when we looked at the orders, it indicated that one of the engineers was not qualified. Any non-qualified crew member had the potential of being under instruction.

Q Can you tell from looking now at that Tab 53 -- does that refresh your recollection as to which of the crew members were in a student status?

A I still maintain that the engineer that was in the non-qualified status -- let me see -- no, I would say that the engineer was not in student status because there was no instructor engineer available to him, so he would be not qualified to perform engineer duties.

Q He would be not qualified or qualified?

A Would not be qualified.

Q So as to the engineer, he was not under training, but he was also not qualified, is that correct?

A I do not know. I do not remember the rules on status of non-qualified crew members.

Q All right, but there was no instructor aborad for the engineer, is that correct?

A I do not know. I do not know how that worked.

Q Well, they have indicated in there that there was an instructor aborad for the loadmasters. They have so indicated, have they not, as to having a check loadmaster aboard?

A I will say that there is a flight examiner/loadmaster on these orders, yes.

Q And you have indicated the purpose of that would be to check somebody who was either under instructions in a student status or in training, is that correct?

A I recall on pure recollection that one of the students was receiving a check.

Q Why were the -- Paragraph 29 of the collateral report indicates that there were more than one, was it not?

A More than one what?

Q More than one student under instruction.

A I do not know.

Q The sentence in there states: "Additionally, those crew members --

A Where?

Q This is in Paragraph 29 at the top of Page 12, and

the sentence states: "Additionally, those crew members who were flying in an authorized student status were under the proper supervision of currently qualified instructor personnel".

A Okay.

Q Does that indicate to you that there was more than one?

A That is what the semantics of that sentence would indicate to me, yes.

Q And are you able to tell us which ones those were?

A No, I am not.

Q Would you be able to tell us whether all of those were in the loadmaster category?

A I cannot --

Q Based upon the fact that the only instructor --

A I cannot say for certain, no.

Q Who would know that?

A I do not know.

Q Well, would the flight examining loadmasters know? They would know who they were checking, would they not?

A They might be able to help you.

Q Do you have any idea what kind of training or instruction was given to those students on this mission?

A No.

Q Do you know if those student loadmasters participated in the loading and unloading procedures for the aircraft? And the closing and checking of the doors?

A I believe so.

Q They did?

A I believe so.

Q Now return to your statement, which is Exhibit I for identification. In the second paragraph from the bottom, there is a reference to the circumstances under which you received your mission orders. Do you see that paragraph?

A What page is this, please?

Q Page 1 of Exhibit I.

A Okay.

(Whereupon, the witness examined the document.)

A Yes, I have read the paragraph.

Q I believe yesterday you testified that you had two telephone conversations with Colonel Tonick and Major Spiney, is that correct?

A I was in telephone contact; it was a multiple telephone conversation. I do not recall the specific number of

calls.

Q When you say multiple, what do you mean? Do you mean a conference call or several calls?

A Yes.

Q Yes, which? To conference call or --

A To both.

Q Both. All right. Let's take the first call, as you remember it. Was that a conference call or a single telephone conference between either you and Colonel or you and Major Spiney?

A At the time, I had no way of determining that. In the events described to me subsequently, quite a few people in the communications net had the opportunity to listen. I do not know who that might have been.

Q Who was identified as the caller? To you?

A Twenty-second Air Force Command Post.

Q And who came on the line for the 22nd Air Force Command Post?

A Those two individuals.

Q Both of them.

A Both of them.

Q Simultaneously?

A At the same time.

Q That was the first call. And what did they say to you and what did you say to them?

A I do not remember.

Q Do you remember in substance what was said?

A They advised me that General Carlton had directed the next C-5 available to take orphans out of Saigon.

Q That was on the first telephone call, is that correct?

A I do not remember which telephone call was which.

Q Where was General Carlton located?

A I do not know.

Q All right. Was General Carlton the head of MAC at that time?

A Yes, he was.

Q Where is the headquarters of MAC?

A Headquarters of MAC is at Scott Air Force Base.

Q And that is in Belleville, Illinois, is that correct?

A That is correct.

Q And where were Colonel Tonick and Major Spiney at the time?

A At Travis Air Force Base.

Q You mention in that same paragraph a Presidential statement to the effect that the Air Force would participate in the evacuation of orphans from Vietnam, is that correct?

A That is what I was told.

Q Who told you that?

A That was rumor.

Q Colonel Tonick and Major Spiney did not tell you that, is that correct?

A I do not think so.

Q Do you know if General Carlton told them that; did they say we were told by General --

A I do not know what General Carlton told them.

Q They did not tell you the form of orders they received?

A No.

Q Did they tell you that General Carlton had made the directive for the next C-5 going to Saigon to participate in this airlift?

A They do not need to justify their direction to me.

Q I understand that, but I am wondering if they told you that collaterally in telling you what you were supposed to know?

A I do not recall.

Q Now you mention a second telephone conversation.

A Yes.

Q What was the reason for that?

A This was a very important operation commencing.

There was more than one conversation to ask me specific questions. Which one they asked me in which telephone call, I do not remember.

Q What questions did they ask you, for example?

A How many people could I take out.

Q And you told them 1,000. You testified to that already. What else did they ask you?

A I do not remember them asking me a whole lot of questions; they passed on information as they had it.

Q Did they ask you anything about the configuration of your aircraft?

A I do not think so.

Q Was there any discussion of the existence of or availability of palletized kit more seating units for C-5A cargo decks?

A Not to my recollection.

Q I believe you testified yesterday that you had seen

some of those subsequent to the accident, but you did not recall that you had seen any before the accident, is that true?

A I knew of their existence, but I physically had not seen them.

Q Where did they exist; where were they located, based upon the knowledge that you had at that time?

A I did not have any knowledge.

Q Have you ever seen them at Travis? Or did you think they existed at Travis?

A I did not ever need to question whether it was or not.

Q This was the first time you had ever flown a C-5 on an evacuation mission, I think you testified to that?

A Yes.

Q You testified you had previously operated a C-5 as a troop carrier, is that correct?

A Yes.

Q Was it one occasion or more than one?

A One that comes to mind. I may have done it other times.

Q On that occasion, did you carry troops in both the upper troop compartment and on the cargo deck or just the troop

compartment?

A Just the troop compartment.

Q Was cargo carried on the cargo deck?

A Yes.

Q Do you know if there were any cargo compartment kits for seating located at Clark Air Force Base or at Tan Son Nhut?

A I did not know anything about location of seats.

Q Was that ever mentioned by you or any other crew member in discussing and planning this mission and during the time you were discussing it, with Colonel Tonick or Major Spiney and any others?

A I do not recall.

Q The next paragraph of your statement, the last one on Page 1, you state that you were advised by 22 AF. I assume that means 22nd Air Force?

A Yes.

Q That you were to take out as many orphans and attendants as were ready to go and floor-load them as necessary?

A Yes.

Q Do you recall who advised you to that affect? Was that Colonel Tonick, Major Spiney or somebody else?

A It was brought to my attention by Lieutenant Colonel

Tonick and Major Spiney.

Q Was that in one of the telephone conversations that you had with them?

A I am not quoting them and floor-loading may be an imprecise word, but the direction was there to remove personnel -- evacuate personnel from Saigon.

Q And in discussing the number that you could carry, did they indicate to you that you should use floor-loading if it was necessary to carry as many as possible?

A They were treating it as an emergency procedure.

Q I understand that.

A To evacuate people from -- in an emergency situation and to take as many people as I could carry out and they were there to be carried.

Q In that context, did they indicate to you that you should use floor-loading if necessary?

A Yes. Once again, floor-loading may be an incorrect -- combat-loading, I think, is another way of putting it.

Q Was there a combat-loading procedure in effect for the C-5 at this time?

A Not to my knowledge.

Q When you just referred to combat-loading, you referred

to that kind of arrangement wherein you may substitute seats for cargo space or vice-versa, depending upon what the plane designates, is that correct?

A I am talking about combat-loading -- putting people in without seat space.

Q I see. And there is such a procedure for other types of aircraft, is there not?

A That is correct.

Q To your knowledge, at this time, there was no such procedure for the C-5?

A That is correct.

Q Who formulates a combat-loading procedure?

A I do not know.

Q Is that a military procedure formulated by the Air Force or the Military?

A I do not know.

Q Did you ever have occasion to discuss that or be involved in that during the time you were the aide to General Aldrich?

A No.

Q Of the 22nd Air Force. Do you know if, subsequent to this accident, they have ever formulated a combat-loading

procedure for a C-5A?

A I do not know.

Q On the second page of your statement, in the paragraph which, I guess, is the first full paragraph on the page, is a statement that you were advised by the OC to hold engine start because they could not get confirmation that Saigon would have orphans ready for us. Who was the OC?

A Wait a minute here. You paraphrased it in some way.

Q No, I quoted.

A Oh, I see. Okay, I was reading in the wrong place.

(Whereupon, the witness examined the document.)

A Okay, now, please ask your question again.

Q Okay. The sentence states: you were advised by the OC to hold engine start because, in effect, they did not know whether they had orphans yet available for you to airlift.

Who was the OC?

A OC is Op Center.

Q I see. And who there advised you?

A We were advised by Op Center to hold engine start because they -- Op Center -- could not get confirmation that Saigon would have orphans ready for us.

Q Was that by radio you were so advised?

A Yes.

Q You were already in the airplane?

A Yes.

Q The next sentence deals with Lieutenant Colonel Willis' status and what he was to do by way of assisting in this mission and it indicates his primary responsibility was to observe and report on this first President's "Baby Airlift Operation". What was Colonel Willis' function, do you recall?

A I did not know the man prior to his boarding the aircraft.

Q Did you have any occasion to discuss with him between Travis and Saigon what his purpose and duties were?

A I think there is a misconception there. He worked at Clark someplace. He boarded at Clark.

Q He boarded at Clark. Okay. Well, between Clark and Saigon, or during the time you were on the ground in Saigon, did you have occasion to talk to him?

A Not of any significance.

Q Did you have occasion to observe what he was doing?

A He was observing me.

Q Mutual observation.

(Laughter.)

Q Prior to departing from Clark, did you at any time express any reluctance to perform this mission? To anyone?

A No.

Q Prior to departing from Clark for Saigon, did you give your crew any special briefing as to security?

A Yes.

Q And was that the usual procedure or did you take any special precautions in this particular connection?

A In view of the seriousness of the matter concerning the environment in Saigon, I took extra precautions to make sure, with the uncertainty of the conditions in Saigon, that the aircraft itself would not be jeopardized.

Q And when you described the uncertainty of the conditions, what are you referring to?

A The informal rumors of the political instability; the rumors of other airlifts preceding us. We were told that people trying to get on the airplane had rushed other aircraft to the point where they were grabbing ahold of whatever they could grab ahold of in an attempt to gain access to the aircraft.

Q Did your special precautions include any considera-

tion of the fact that the military situation there had deteriorated and there were potentially hostile troops in the vicinity of the airport.

A There had been potentially hostile troops in the area as long as I have been in the Air Force.

Q Did your special precautions take into consideration the probable deterioration of that situation, wherein there were perhaps more hostile troops in larger numbers in the vicinity?

A I was aware of a possibility of increased danger to the aircraft, yes.

Q Had there been any incidence of ground fire striking income and outgoing transport aircraft at the airport?

A Not to my knowledge.

Q Were there any -- other than your own knowledge and your own experience, you have referred to the exchange of information between pilots as one way in which you were kept informed, both of operational situations and military situations, had you had any reports from others that there had been ground fire which may have struck incoming or outgoing aircraft?

A I do not recollect any discussions about that.

Q Did you consider that a possibility?

A Always.

Q In fact, that is a continuing possibility in the military transport situation, is it not?

A That is correct.

Q And you were trained to respond to that possibility?

A Yes.

Q Indeed, this kind of aircraft, the C-5A or other cargo aircraft, for the military or transport command, sometimes fly into bad areas and out to remove troops or to deliver troops do they not?

A As I understand it, that is my mission.

Q And your training reflects an anticipation of that type of mission, does it not?

A Yes.

Q Does your training anticipate the possibility of being struck by ground fire? Or losing certain components or systems as a result of ground fire?

A No.

Q The training does not prepare you to handle a situation wherein you are required to fly to a combat area with an aircraft and handle situations which might result with being struck by ground fire?

A We are trained to deal with the loss of a component system or what have you, whether it be a loss or a damaged part caused by material, maintenance, ground fire, sabotage -- whatever you want to name.

So, no, we do not specifically receive training on what to do if a bullet hits such and such. No. We are trained what to do with the loss of a system.

Q But if a bullet hits a component of the system, it could result in the same kind of failure as a maintenance problem or a material problem or whatever, is that not true?

A That is potentially true, yes.

Q Your fourth paragraph on Page 2 of your statement indicates you were met by Vietnamese Security personnel, is that correct?

A Yes.

Q Did they provide the total security around the aircraft or did you have some of your crew assist?

A As I stated, I put my own crew out.

Q Okay. And the next sentence after the one dealing with Vietnamese Security indicates the following: My crew members were stationed on the left and right sides and one was on the long cord interphone from the crew entry door. Was that

part of your security provisions?

A Yes.

Q That was to prevent unauthorized access to the ramp and inside of the aircraft, was it not?

A My people stationed around the aircraft had the opportunity to maintain somewhat of a secure area about the aircraft.

Q In addition -- excuse me.

A The long cord that I refer to is the scanner's air-phone cord and it is a normal procedure to have someone outside. However, I had him stationed there permanently and in radio contact with the co-pilot who remained in the right seat.

Q Did he remain in the right seat for the entire time you were on the ground?

A I cannot ascertain that. It was intended that he did

Q I see. Were those members of your crew who joined the security group armed?

A Some were.

Q Were the Security Group armed -- the Vietnamese Security Group?

A Yes.

Q Were there a number of other people in the area, Vietnamese and otherwise, who were not part of the crew or a

part of the assigned security group?

A What is the area?

Q The area of the aircraft.

A I had defined a clear area by the stationing of my people around the aircraft. The aircraft could not be approached except from the rear for the offloading operation and from the troop door for the upload operation.

Q Was all of the offload accomplished through the rear cargo door?

A I have no reason to suspect otherwise. I was not there.

Q And was a substantial portion of the loading of passengers to both the troop compartment and the cargo deck done through the rear cargo door?

A I do not know how they would have gotten to the rear of the aircraft. They had to come up the steps.

Q Well, we had some testimony yesterday from the nurses who indicated they entered the aircraft in the cargo deck area and climbed up into the troop compartment on the ladder. Would they have gone up the cargo ramp or would they have entered through another door?

A The troop door is in proximity to the stairs that

lead from the floor of the C-5 to the troop compartment. I do not know what their testimony was. In my recollection, the people who were boarded on my airplane walked up the truck stairs, through the troop door and up the stairs to the troop compartment if that is, indeed, where they went. Otherwise, they went to the forward part of the cargo compartment.

Q Well, then, you did not use the rear cargo door ramp for loading of passengers?

A I do not think so. Like I said, I -- right now, I cannot think of any way that they could have reached that high.

Q What was the reason for keeping the ramp down then?

A Air.

Q Just to keep air in the cargo compartment area. Do you know if that was the first time you had lowered the cargo ramp since leaving Travis?

A Yes, I do know that.

Q Was it the first time?

A Yes, sir.

Q Do you know if that was the first time the cargo ramp and door had been operated since the aircraft had left Travis on the mission preceding yours til Warren Robinson returned?

MR. BATTOCCHI: Could I have that question repeated?

I didnt hear it.

BY MR. DUBUC:

Q Do you know if that was the first time the ramp had been operated since the aircraft left Travis and went to Warren Robinson and returned on the mission prior to his.

A That was the second question?

Q Yes.

A To that, I have no way to substantiate. Then, let me add it is only my crew's testimony to me that they did not open or close it. I was not -- they were not in my presence the entire time, nor is my crew required to be in my presence during other operations. People at the ground at any one of the stops is fully authorized to cycle the doors.

Q There would have been no operational reason to do so, would there have?

A Not to my knowledge.

Q In the next paragraph of your statement, you refer to an assistant air attache, Colonel Mitchell, who is identified as the coordinator for the "Baby-lift". Do you see that sentence?

(Whereupon, the witness examined the document.)

A Yes, I do.

Q Did he inform you that he estimated 300 people would be boarding the aircraft?

A Yes.

Q And did he give you a manifest or a list of the names of those people?

A No, he did not.

Q Did you ever receive a manifest or list of the names of the people, all of the people who boarded the aircraft in Saigon?

A No, he provided us with a partial manifest.

Q And what did that include, if you recall?

A I do not recall.

Q Did that include the names of the orphans who boarded?

A I do not think so.

Q Indeed, your statement in that paragraph indicates "(as far as I know, this list of orphans was never available)".

Do you see that?

A Yes.

Q Does that refresh your recollection as to the existence of any such list of orphans?

A The listing was incomplete, as far as I know. That

is still a true statement. As far as I know, the list was never available, as far as I know.

Q Okay. You mention that some baggage was added after the inspection. Do you know if any persons were added to the people who were to board or who boarded before you left Saigon who were not originally scheduled to board the aircraft?

A Having no way to determine who was and who was not originally scheduled to board my aircraft, I would have to say the possibility exists.

Q Would it be a fair statement that the situation concerning the identification of and names of those orphans who boarded or were placed on board was in somewhat of a state of confusion?

MR. LEWIS: Objection. He just said he did not know.

BY MR. DUBUC:

Q Do you understand the question?

A No. please say it again.

Q Would it be a fair statement that as to the identification of and names of the orphans who boarded or who were placed on board, being either unknown or unlisted, that the situation as to the identification of those persons was in somewhat of a state of confusion at the time that you were boarding

the aircraft?

A I would not say it was confusing to the boarding. I cannot disagree that there is no way for me to determine subsequently who was and who was not on that aircraft.

Q Do you know what was included in the baggage that was boarded?

A No.

Q Was it all personal baggage? To your knowledge?

A Well, what other types are there?

Q It might have been official Air Force --

A Oh, I see. No, no cargo.

Q No cargo. The baggage as you indicated in the last sentence of that paragraph was loaded in rows in the aft ramp and cargo floor. Is that correct?

A I am sorry; I do not see that again.

Q The last sentence.

A Oh, okay. Although I do not recall the procedure, at the time there was one dealing with anti-hijack procedures that isolated the people from their baggage so that they could not place objects in the baggage that could cause a problem.

Q Was the location of that baggage aft of the location of the passengers that were seated on the cargo floor?

A Well aft.

Q Well aft. So the baggage, in effect, was behind the passengers, is that correct?

A That is correct.

Q Was there any procedure that relates to the placement of baggage behind the passengers that you are aware of?

A Only ease of offload.

Q That is the only --

A That is the only reason it was where it was.

Q I believe yesterday you testified that you made some determination as to where these orphans should be seated and I think you said that if they were old enough or sufficiently coordinated to open the seat belts, they were assigned to sit in the lower cargo floor, is that correct?

A I cannot quote myself yesterday; however, the idea of the person being able to do that was a determining factor of whether or not to leave them remain in the troop compartment.

Q And the idea was if they could open their seat belts, they would stay in the troop compartment because then they would be able to unfasten themselves if necessary, is that the idea?

A I think that is backwards, if I have misled you.

Q All right.

A The maximum use of the troop compartment appeared to be gained by putting two children to a seat, separated by a pillow and then given baby bottles; the seat belt put across them. It did not need the supervision that would have required to make sure that the older children were able to open the seat belts and distract the attendants from supervision.

Q I see. So the idea was if they were able to open their seat belts or squirm around and move around or attempt to move around in the aircraft, you did not want them up in the troop compartment. You wanted them down on the cargo deck?

A Yes.

Q Is that right?

A Yes.

Q And we have had some testimony from the two nurses yesterday to the effect that less than half, but in any event, a substantial number of older children had been seated with the infants in the seats, one-on-one, for the purposes of having the older children assist in administering things to the infants.

A Yes.

MR. LEWIS: Just let me make my objection before he

answers. Go ahead with the question.

BY MR. DUBUC:

Q Do you know if there was any reconsideration or re-assignment of seats after you had originally given your directions?

A It was not --

MR. LEWIS: Just one second. I am going to object to this. It is not an accurate characterization of what both witnesses said. I believe one of the witnesses made some remark about some of the older children being upstairs. The other witness said there were only infants.

MR. DUBUC: That may be.

MR. LEWIS: You said they both, sir. And that is not true. I do not want you to mislead the witness. I do know you did not intend to, but I would like you to be --

BY MR. DUBUC:

Q At least one of them said that part of their plan was to have an older child with a younger child and I think you indicated that more than half of the children in the troop compartment were in the younger child category, but there was still a substantial number of older children there.

A That could be. Lieutenant Aune was my medical crew

flight director -- whatever the term is. But she was the chief nurse on board. In that regard, I would defer actions in the troop compartment to her judgment inasmuch as I would defer to an engineer's judgment on a system or the loadmaster's judgment on the load.

So it is not, as you say, directive. And putting two children to a seat was an idea.

Q Okay. So -- there was also a Captain Klinker aboard the aircraft, was there not?

A Yes.

Q She was identified by one of the witnesses yesterday as the nurse in charge of the medical unit who gave them a briefing at Clark?

A I could not tell you about their medical procedure and what they do at Clark.

Q But as far as you were concerned, Lieutenant Aune was your medical coordinator?

A That is correct. Captain Klinker boarded at Saigon.

Q I see. Now you state in your statement, next to the last paragraph on Page 2, that the rapid decompression was exactly as demonstrated in the altitude chamber.

A Yes.

Q One of the witnesses yesterday described it as a "classic textbook rapid decompression". Would you say that is a fair statement or not?

A I have never seen a rapid decompression textbook, sir.

Q Well, try to describe it.

A The procedures are done, they brief them and there is usually a lecture method of training. I am not aware at the moment of literature on the subject available to me. There may be. But the important thing is the training, and they do simulate going to altitudes and letting you experience the symptoms of hypoxia to the point where you are not able to coordinate your own movements, so that you yourself know your own symptoms.

Q We asked the nurses yesterday this question, and I will ask you the same one: in connection with that high altitude training where they demonstrate the effects of hypoxia and have you remove the mask.

A Yes.

Q Is that done at various altitudes, at least chamber altitudes?

A Apparently so because different chamber rides I have had have gone to different altitudes.

Q Do you recall which altitudes they were?

A No, I am sorry.

Q Did you ever have a chamber ride where the chamber altitude was in the approximately 23-, 24-, 25,000 feet range?

A We passed through, if I am recalling the -- one of the instructor's techniques correctly, they would start from sea level and take you up and let you experience some of the different altitudes, yes.

Q Was one of the altitudes 10,000 feet?

A I do not know.

Q You do not recall?

A No, I do not.

Q Do you recall the time after -- I guess they have you remove your mask. Is that what they do in the chamber?

A Yes.

Q Do you recall the time after removing the mask during which you were able to function fairly normally?

MR. LEWIS: Do you mean how many minutes or seconds?

MR. DUBUC: Yes.

THE WITNESS: It is different for --

BY MR. DUBUC:

Q Each of you?

Q -- for everyone in each altitude, depending on the partial pressure of oxygen.

Q And one of the procedures for handling a rapid decompression is to put on a mask, but one of the primary procedures is to descend, as you testified yesterday, is it not?

A Yes.

Q Do I recall your testimony correctly from yesterday to the effect that you indicated that if you are able to descend, there may be no need for oxygen at all?

A From specific altitudes, yes, that is a true statement.

Q Would you say that with respect to an altitude of 23,000 feet?

A Are we speaking -- would you clarify your question, please?

Q Well, assuming the facts with which you were confronted on April 4, 1975, wherein a rapid decompression occurred at 23,000 feet, and you found that you were able to descend and to descend as you have indicated, rapidly?

A Yes.

Q Under those circumstances, would it make any difference whether you had oxygen available or not?

MR. LEWIS: Excuse me just a minute. If you are asking him as an expert on the subject, and you seek to introduce this at some later time, at the trial as the testimony of an expert witness, I would object on the basis that it does not state all of the elements present. You do not have, for example, the length of time descending and I believe the MADAR tape -- at least the Government represented -- took something like six and a half minutes to get to roughly 10,000 feet. So you ought to include all the elements in it, and the different times that he was at different altitudes --

MR. DUBUC: My question --

MR. LEWIS: -- in order to be fair to the witness. And if you do not seek to have this testimony at some future time, then I do not insist that you have all of the elements.

MR. DUBUC: My question assumed all the facts with which he was confronted on April 4, 1975. So it would include all of those.

MR. LEWIS: But you misstate them, and that is my objection. That you have not stated them. And since we are stating the form of the objection at this time -- not substantive objections; my objection is to the form of the question, that you have not stated all of the premises that you are asking

this man -- if you are asking him as an expert, to testify.

MR. DUBUC: Well, as long as I am going to have to ask the question again, I respond and suggest to you that under the new Federal Rules I do not have to state all of those assumptions, as long as I refer to it on an understandable basis.

MR. LEWIS: I do not wish to debate it with you. I am just stating my objection.

MR. DUBUC: I will ask the question again rather than asking you to read it back because it is going to take some time to find it.

BY MR. DUBUC:

Q Assuming the facts with which you were confronted, on April 4, 1975, with a rapid decompression at 23,000 feet and the fact that you found immediately that you were able to descend and to descend rapidly, considering your experience and knowledge of hypoxia and your training, would you say that it would make any difference whether you had had oxygen available or not under those circumstances?

A To me personally?

Q Yes.

A No.

Q Would you think it would have made any difference as

to the passengers, whether they had oxygen available or not, under the same circumstances?

MR. LEWIS: I am going to object. There is no showing that this witness has any understanding of aerospace medicine as it affects children -- infants.

MR. DUBUC: That will be subject at a later time. I am just wondering what he thinks.

MR. LEWIS: Are you asking for an expert opinion?

MR. DUBUC: The question states what it requires.

MR. LEWIS: I think, in order to be fair to the witness, you should tell him that you are asking him whether he has an opinion as an expert on that subject.

BY MR. DUBUC:

Q Did you understand my question?

A I should preface my remarks by I am not an expert in aerospace medicine; I am trained to deal with things on a superficial level. It would be my opinion that it would be far less important for the short duration of time that we are speaking of for passengers and other crew members to have oxygen than myself.

Q Okay. Thank you. In your statement on the same page you indicate that you were climbing out past Vung Tau just

past flight level 230, which is 23,000 feet, as I understand it, when the decompression occurred. Do you know how many minutes you were from Vung Tau? Did you ever discuss that or reconstruct that?

A Yes, it was discussed, and I do not know how many minutes at this time. It was not --

Q The -- if I can find it --

MR. PIPER: Could we go off the record for half a second?

MR. DUBUC: Sure.

(Whereupon, a short recess was taken at 4:22 p.m.)

MR. DUBUC: Are we ready to go?

BY MR. DUBUC:

Q I think when we broke, I was asking you if you recalled the amount of time that transpired between the time you passed over Vung Tau and the time the rapid decompression occurred and whether you had ever reconstructed that in discussions or otherwise.

A Yes, it had been reconstructed.

Q Do you know how much time that was?

A No, I do not. That was dealt with primarily by the

navigator.

Q The collateral report, just for point of reference, that you have before you --

A All right.

Q -- in the narrative statement, which is up front and I think it is -- called the narrative statement or whatever -- but in Paragraph 16 there is an indication that the aircraft passed Vung Tau at 16:12 local time and the rapid decompression occurred 16:15 local time. Is that consistent with your recollection or reconstruction?

A That is a reasonable frame of time.

Q During that period, you were headed on a heading of 136 degrees, is that correct?

A If that is what it says.

Q Approximately Southeast?

A I took up the heading the navigator gave me.

Q All right. And would that have placed you over water?

A I was over water, yes.

Q And Vung Tau is on the coast, is it not?

A It is a coastal place.

Q Is it your recollection, based upon your knowledge of that area, that on the heading of 136 degrees you would have

been flying over water from the time you left Vung Tau?

A Yes.

Q Do you recall your air speed?

A Yes, because my climb schedule calls for a 270-knot air speed.

Q And so would your air speed have been in the vicinity of 270 knots during that period that you left Vung Tau until the time of the rapid decompression?

A Yes.

Q And if we computed it out, would that compute out to approximately four and a half nautical miles per minute?

A I do not know what it computes out to, but I was accelerating to 270.

Q I see.

A So I do not think you can back track, from 270 to figure a distance.

Q It would have been in excess of four miles a minute, would it not?

A I do not know.

Q Even at 254 knots, which is indicated in the collateral report?

A Four times 64, yes.

Q So you had been in excess of 12 miles over open seas Southeast of Vung Tau at the time of the rapid decompression, would that be a fair statement?

A By your calculation, that would be an approximation.

Q Would you agree with my calculation?

A It is close.

Q All right. There is also a reference in the AAR to the fact that you had an extra NDR tape which was a spare tape, I guess, in your possession after the accident. Do you recall that?

A What is an AAI?

Q NDR.

MR. PIPER: AAR is the Aircraft Accident Report.

MR. DUBUC: Oh, the Aircraft Accident Report.

THE WITNESS: Are you referring to MADAR?

BY MR. DUBUC:

Q No, it was described as an NDR. I do not know what that is.

A I do not either. I know what you are referring to. To save time, I will clarify your question.

Q Sure.

A The MADAR prints out on a recorder and this recorder

has a tape on it. And I was given a MADAR tape cassette at Air America. I carried that cassette to Clark and gave it to the Accident Board.

Q Was there anything on that tape?

A I have no knowledge.

Q Did it come off the cassette?

A I beg your pardon?

Q Did you remove the tape from the cassette?

A No, it is a sealed plastic cassette. I was told later that it was the spare.

Q I see.

A But I have no way to ascertain that to be true.

Q Do you have any recollection of how long you were on the ground in Saigon prior to your departure on this flight?

A Not any longer. I probably even have it in my statement here someplace, but I do not remember what it is now.

Q Was it slightly in excess of three hours?

A I do not know. Can you point out where it is? What I said is probably true. I had carried a 781 out myself so I know that is the time they are available.

Q This report in front of you indicates arrival in Saigon at 12:51 local time, and that is in Paragraph 11.

(Whereupon, the witness examined the document.)

A That seems to be a logical time.

Q In Paragraph 15, it indicates take-off time is 16:03.

A Okay.

Q That computes out to a little over three hours, I think.

A Okay.

Q Three hours and seven minutes. Would that be fair?

A That is a reasonable ground time, yes.

Q Do you recall the altitude at which you flew from Clark to Saigon on the incoming trip?

A No.

Q Would the figure 31,500 feet refresh your recollection to any extent?

A I do not remember the rules involved, nor do I recall the weight of the aircraft, nor the temperature that day. So the ATC could direct us to fly at any altitude consistent with the operation of our aircraft. No, I do not recall at what altitude.

Q Do you know if it was in excess of 30,000?

A I do not remember.

Q Do you have any discretion or any input as to what altitude you select within what certain ranges?

A Yes. At that time we were impressed by fuel economy and we were to maximize altitude for fuel economy.

Q Then would that suggest if you were maximizing the altitude that you would have been in an altitude of 30,000 or above range?

A It is likely.

Q And you did have that option, because as this exhibit indicates, in the discussion in the cockpit, there was some discussion even as to the altitude you were going to use from Saigon back to Clark, was there not?

A Yes, I read that, too.

Q And those altitudes all ranged 30, 33, 37 and so on, did they not?

A Yes, they ranged within the possible regime of the aircraft.

Q Did you incur any further engine vibration, either on the flight from Clark to Saigon or after leaving Saigon?

A I never incurred engine vibration. I incurred a MADAR printout of engine vibration.

Q I see. Did you incur any further MADAR printout of

such vibration?

A. No, it was disconnected.

Q. Okay. MADAR was disconnected?

A. To that parameter, yes. As I recall.

Q. Where was it disconnected?

A. I do not know how it is done.

Q. But where -- was it done at Clark?

A. At Clark, yes.

Q. I see.

MR. PIPER: Off the record.

(Discussion off the record.)

BY MR. DUBUC:

Q. Could you tell me again who your co-pilot was on this flight?

A. Yes, Til Harp.

Q. Do you know his experience background and training?

A. Figuratively, yes.

Q. For example, how many hours he had in the C-5?

A. No, nothing like that.

Q. Had you flown with him before?

A. I think so. Very close association of crew members.

Whether or not I flew with him as my co-pilot before, I do not

recall. I knew him well.

Q This morning you were -- withdrawn. But you do not know his experience in a C-5, other than that he was qualified as a co-pilot?

A As a person?

Q Yes. Is that all you knew about him?

A No, I was aware that he was a highly competent pilot.

Q But you do not know the number of hours that he had in a C-5?

A No.

Q Do you know of any other kinds of aircraft he had flown?

A I could only guess. No.

Q You were asked a question by Mr. Battocchi, but I do not recall whether it was this morning or this afternoon --

A Oh, yes. I am sorry. I do know what other kind of aircraft he had flown. He had flown a 141.

Q Okay. Any other kind?

A Not to my knowledge. I know he flew 141's because I asked him about air bank procedures.

Q Okay. In what context did you ask him about air bank procedures?

A I asked him to review the MAC regulations on it and advise me if there were any things that pertained to actions that we would be addressing.

Q Okay. Mr. Battocchi asked you this morning if you had any knowledge of the utilization of the lift distributor control subsystems to provide a pitch moment. Do you recall those questions?

A Now that you put it in those words -- is that the same words that you had before -- is that LDCS?

Q LCDS.

A LDCS.

Q LDCS.

A Okay. Yes, I know what LDCS is.

Q What is that?

A It was the system that was put on the aircraft to rig the ailerons. We were told to decrease wing fatigue. But it was merely procedure on my part; not on engineering.

Q Did it accomplish any other objective, the LDCS system?

A No.

Q The context in which he put it in which it is described in this index of documents which he read refers to it

in connection with providing a pitch moment. Are you familiar with that aspect of the system?

A There are many things that affect pitch on an aircraft and as a matter of fact, anything that you do to an aircraft affects the pitch of an aircraft. How much and is it compensatable -- or do I need to do something else to compensate for it is not within my expertise.

Q You say there are other things. One of the things obviously is the operation of the trim tabs or control surfaces

A Yes.

Q Is that correct?

A That would be one.

Q What are some of the others?

A Gear, flaps --

Q What affect does the gear have on the pitch moment?

A It causes me to move my trim button to relieve the control pressures in my hand.

Q Which way do you move the trim button?

A I do not think about it; I just do it.

Q Well, if you lower the gear, do you know which way you trim?

A It is not a conscious thought process. To say: I

am going to do this action and it is going to take this much time on the trim button.

Q You are familiar with the MAC -- the term "MAC", are you not? Mean Aerodynamic Cord.

A Oh, okay.

Q Or CG?

A Yes.

Q They are the same term. They describe the same thing, do they not?

A I do not believe so, no.

Q What is the difference?

A I am not qualified to explain that.

Q When we speak in terms of trim, we are speaking in terms of compensation for the center of gravity movement on the aircraft, are we not?

A No, we are not speaking of movement of center of gravity on the aircraft.

Q In the context of lowering the gear, we would be speaking in those terms, would we not?

A No. Not in the way I understand what you are calling center of gravity. Center of gravity, in my understanding, is a static thing. The center of gravity does not change with

anything but where you place items in the aircraft.

Q But if you move an item, or move a component, it can have an effect on the center of gravity, can it not, in flight?

A It sounds reasonable to me. That is not something I have explored.

Q Do you know what happens as far as nose-up or nose-down effect when you drop the gear? On a C-5A?

A I did not know what it would do, no.

Q You do not?

A No.

Q Was that ever discussed at any --

A Subsequently, it was discussed and, as I understand, has been incorporated into training. But I have not received that training, nor have I -- do I have any recollection of what it is.

Q What other things might affect pitch moment? We have talked about the control surfaces; we have talked about the gear; and we have talked about the flaps. What happens if you lower the flaps?

A It has an initial pitch down.

Q The same is true with lowering the gear?

A I do not know. I really do not know.

Q And, did you have your flaps up on April 4, 1975 --

A Yes.

Q -- when you made your approach to Saigon Airport?

A Yes.

Q Okay. Now what else would affect the trim or the pitch moment?

A I subsequently learned that the spoilers would.

Q Spoilers -- the operation of spoilers?

A Yes, but that was not in my knowledge at the time.

Q Was that tied in with the life distributor control subsystem?

A I do not know.

Q Was that system installed on the aircraft you were flying on April 4, 1975?

A I believe so.

Q Would anything else affect trim or pitch moment of the aircraft, in addition to those things you have mentioned?

A I cannot think of any.

Q Does the pitch moment or trim change as you consume fuel?

A Not so that I would notice. I have subsequently learned that it does, but it was nothing that I would

5:00 p.m.

consciously be aware of.

Q Who handles the fuel monitoring on a C-5 mission -- the pilot, the co-pilot, the engineer or who?

A Engineer.

Q Is he responsible for cross-feeding fuel or determining what tank the engines are burning fuel from and that sort of thing?

A Within his current guidance, yes.

Q Does he keep a log of burned, consumed fuel and compute that log against weight as you progress through a flight?

A Yes.

Q That is a function of a number of things, is it not? The point of no return, function of fuel reserve, and a function perhaps of the power settings for best fuel consumption?

A I do not recall what is on his form.

Q Okay. You were asked some questions by Mr. Battocchi about the number of fuel tanks in the aircraft.

A Yes, sir.

Q I think you said there were 12?

A Yes, and I amended my response to include that I was pulling on old information. I do not recall the precise numbers et cetera.

Q Well, in April, 1975, was it your recollection that there were about 12 tanks?

A I think that is correct.

Q What does that include? Does each engine have fuel tanks?

A Yes, there is a main fuel tank for each engine.

Q And there is also an auxiliary tank for each engine?

A Yes.

Q Is there also an extended range tank for each engine?

A Yes, as I recall.

Q So there are three tanks for each engine, is that correct?

A Correct.

Q Are they designated Number 1, Number 2, Number 3 and Number 4 main tanks; Number 1, Number 2, Number 3, Number 4 auxiliary tanks; and Number 1, 2, 3 and 4 extended range tanks?

A That is correct.

Q And Number 1 tanks would be on the outward portion of the left wing, would they not?

A I do not know.

Q You do not know where they are located?

A No.

Q In the course of your training, either co-pilot training or mission training for a C-5A, did they ever go through the fuel system?

A Yes, they showed us diagrams.

Q You do not recall where the tanks are located?

A Well it was not essential at the time for me to know that. Anything more than that there were tanks and they did exist. Based on the length of time that I have been out of the aircraft, I certainly do not remember now.

Q Is there procedure, for example, if you lose an engine, to cross-feed fuel so as to keep the balance of your wings approximately the same?

A I do not know that is the reason for the cross-feed.

Q Is that one of the reasons?

A I do not know. The reason that I am most aware of is so that you will have similar amounts of fuel in the main tanks.

Q Do you know whether the pitch trim moment becomes nose-down or nose-up as you burn fuel from the outboard 1 and 4 tanks?

A I do not know. I know that it has been determined subsequent to my incident. But I do not know what it is.

Q You do not have any knowledge of that entire process of the fuel system. Who would have that -- the flight engineer? In other words, if I am going to ask those questions, who should be asked?

A To ask what happens to the center of gravity -- I could not speculate on who. I do not think it would be a crew member.

Q Is there a procedure available in a C-5A for dumping fuel -- jettison of fuel? Where are the jettisons located, are they on the outboard section of the wing?

A On the trailing edge, yes.

Q And outboard?

A What is "outboard"?

Q Toward the tip?

A I do not recall their exact placement on the trailing edge of the wing, no.

Q They are not close to the fuselage, is that correct?

A They are not -- no, they are not close to the fuselage.

Q When I say "outboard", I am saying some ways out on the wings.

A Yes, it is some ways out on the wing.

Q Are they located in close proximity, for example, to

the outboard main end auxiliary tanks?

A As I stated, I do not know the location of the tanks.

Q Are the main tanks, the forward tanks?

A I do not know. I am sorry.

Q You do know approximately where the jettison masts are located, however -- outboard on each wing, is that correct?

A I recall seeing the jettison masts on the trailing edge of the wing.

Q Was any consideration given at the time or shortly after the rapid decompression to jettison fuel?

A No.

Q Was there any discussion of it?

A No.

Q What was the reason for that?

A There was no reason to discuss it, in my --

Q Well, okay. What was your thinking and reason for not jettison fuel?

A I did not think of it in terms of a conscious thought process. I am not going to think of this now.

Q Okay. In Exhibit E, which was shown to you this morning and this afternoon, which is the transcript of the CDPIR tape, there was a reference on Page 16 that Mr. Battocchi

asked you about and it is seven lines down, and it states:

"(and loud noises heard at this point)". Do you see that?

(Whereupon, the witness examined the document.)

A Yes.

Q I believe you described that as a static noise on the headset or interphone, is that correct?

A That did not compute to any known noise that I could identify when I heard it on the tape.

Q But what -- was it a sound that you would associate with a radio or a static noise or was it some other kind of noise?

A Well, it came across my interphone in my headset, so -- to arrive at that tape. I do not recall hearing it at the time.

Q What feeds into that tape? I think you said all stations on the aircraft feed into that tape, anybody transmitting?

A To my knowledge.

Q And if there was a microphone in proximity to an area, for example, would you pick up sound from that area if somebody keyed the microphone?

A That is possible.

Q Did you notice in the cockpit or did any of your crew notice and report to you or subsequently recall to your knowledge, any blinking red light shortly before the rapid decompression?

A Not to my knowledge.

Q I do not know -- you said you do not read the newspapers, but maybe you heard it on television or otherwise. Have you ever heard of a book published by Frank Snepp entitled Decent Interval?

A Never.

MR. PIPER: Object to the relevancy.

(Discussion off the record.)

BY MR. DUBUC:

Q Referring your attention again to Exhibit E, which is the transcript of the CDPIR recording --

A What page? I am sorry.

Q I believe you testified previously that your participation in what is on this transcript starts on Page 4 at the top of the page with the statement: "Okay, it is half-way comfortable back there for them." Is that right?

A That is the first plausible comment that I could have made, yes.

Q Now you previously testified that you had at least asked the co-pilot to remain in his seat during the entire period you were on the ground as part of your security procedures, is that correct?

A That is correct.

Q And if he followed your instructions, during the time these preliminary activities were going on in the aircraft, he would probably still be in the seat, is that not correct?

A Well, I do not know that I required him to "be in the seat". The C-5 has the capability of putting the interphone on a speaker, so he was present on the flight deck.

Q Well, on this first page of this Exhibit E, there is about half-way down the page, there is a call that says "Co-pilot engineer". Now that is the engineer calling the co-pilot, is that correct?

A Yes.

Q Of course anybody could be sitting in the co-pilot's station?

A That is correct.

Q Based upon the facts and circumstances you have described to us, you have suggested that it would be logical that he would be sittin there, is that correct?

A Yes.

Q Okay. And in connection with that same conclusion, on Page 2, there is some discussions of altitude in the third paragraph.

A Yes.

Q Would it be either you or the co-pilot who made the determination of the altitude in which -- at which you were going to fly?

A It is the prerogative of any crew member to discuss altitude.

Q Now, --

A To speculate on altitude.

Q Now, based upon your --

MR. BATTOCCHI: Objection. I do not think that answers the question.

BY MR. DUBUC:

Q Based upon the way you ran your crew, who normally determines the flight altitude and how did you do it?

A The engineer supplied fuel data; the loadmaster supplied weight data; the navigator provided the expertise to enter fuel charts to brief me of the possibilities that were available to me; and I decided.

Q Okay. On the first page, about five lines under where we have that co-pilot-engineer call, we have got a discussion of weight and the statement: "About 33,000". Do you see that?

A Yes.

Q Do you think that would be the co-pilot, the engineer or the navigator?

A Let me read it and I will see if I can guess for you.

(Whereupon, the witness read the portion of the document.)

A I would say the question: "How much weight did we figure on?" was the co-pilot speaking. That would be my supposition.

Q And four lines down, there is another statement: "Just wondering". Do you see where it says "just wondering" and it looks like he is calling "nav". Who do you suppose that would be?

A Let me see.

(Whereupon, the witness continued to read the portion of the document.)

A Yes, I would suppose that that is also the co-pilot talking to the nav.

Q All right. And then further down, there is a

reference: "I figure a plus 15 engineer without even looking at it". Do you say that is the co-pilot or the navigator?

A Let me check.

(Whereupon, the witness continued to read the portion of the document.)

A That was probably the navigator speaking.

Q Who was the navigator again?

A Wait a minute here. Wait a minute. "What kind of temp deviation were they running" would have been a navigator question.

Q Yes.

A "I did not think to ask them" was probably the co-pilot if he was the one that was talking with the crew.

"I would figure a plus 15 engineer without even looking at it" could have been either one.

Q The nav or the co-pilot?

A Yes, I would have no way of knowing.

Q Okay.

A They are merely speculating at this point --

Q Okay.

A -- not computing it. In my opinion.

Q How about the first statement on Page 2?

(Whereupon, the witness continued to examine the document.)

Q Talking about "Other suitable. . .", would you suspect that was the co-pilot?

A I do not know.

Q Who uses the term "could get"? He would be the one requesting it, would he not?

A I would not speculate on who.

Q And you think the third paragraph, according to my chart, is whom?

(Whereupon, the witness continued to examine the document.)

A I am sorry I cannot be more accurate on this, but that could be the navigator or the engineer. I think both of them have the capability of determining that for a conversational piece.

Q Navigator or engineer. Who was the navigator on the flight deck?

A I do not know who was on the flight deck at the time.

Q Who was your navigator?

A I had two.

Q Who were they?

A John Langford and Bill Wallace.

Q And who was the engineer?

A I had two of them.

Q Who were they?

A Engels and McAtee.

Q You told us that, yes.

A And I subsequently discovered or recollected that there was an unqualified engineer also.

Q Who was he?

A That was Dionne.

Q Do you recall who was functioning as the flight engineer when you took off from Saigon?

A Yes, Engels.

Q Do you recall where Dionne was?

A No.

Q With respect to the fourth statement on Page 2, following the one that was made by either the navigator or the engineer, can you identify who that might have been?

A No, that could have been anyone on the aircraft listening.

Q I see. How about further down the page where the paragraph starts: "I guess maybe 33". Do you see that one?

A "About 33"? Is that what you are --

Q The first sentence says: "I guess maybe 33 would generally be the best bet".

A Okay.

Q Who would you attribute that to? That sentence -- did that sound like the co-pilot making informed decisions on the information he has received?

Again, he has in there the context "will ask for 37".

(Whereupon, the witness continued to examine the document.)

A I cannot make a judgment on that. I cannot form an opinion.

Q Would it have been the co-pilot, the navigator or the engineer -- one of the three?

A I can make deductions based on logic, but I cannot tell you who was talking.

Q You listened to this tape at one time, did you not?

A Yes, I did.

Q Do you recall if you ever identified the people at the time you listened to it?

A I recall that I did not identify them.

Q Somebody identified them?

A The individuals themselves, did, yes.

Q Each of them by themselves?

A I know that. Yes.

Q I see. Who was there when you listened to the tape?

A No one of consequence that I recall.

Q Was the co-pilot there?

A The crew was there.

Q The whole crew was there?

A Yes.

Q Where did you do that -- at Clark?

A No, at Travis.

Q After you got back to Travis.

A Yes.

Q Do you know where the tape is now?

A No.

Q Further on down the page, there is a reference --

let me see -- one, two, three, four -- four lines down from the paragraph we have just discussed. It starts with "I am going to go down there and see if I can help. They are having some problems down there." Do you know what those problems were?

A Excuse me. Let me find that.

(Whereupon, the witness continued to examine the document.)

A I would have no way to determine what problems they were referring to. They could be very, very minor. No, I do not.

Q I think it was yesterday that you indicated the reason you do not come on this tape until the fourth page is that you were back in the aircraft checking the troop compartment and the cargo compartment, is that correct?

A Well, as you know, we were on the ground three hours, -- as you have calculated, some three hours and something -- and we are dealing with one half hour of transmissions, approximately 15 minutes of which is airborne. So you are catching the last 15 minutes of ground time on tape and I cannot purport to tell you what exactly I was doing during the last 15 minutes of my ground time.

Q Okay. But at least at this point, the loadmaster was in the process of preparing to depart, was he not, because there is a statement just above that: "Loadmaster, do not stop the operation." Do you see that?

A Yes, I see that.

Q So this was at a time just before you were going to start your pre-engine start check list, is that correct?

A I would not draw that conclusion, no.

Q It is certainly at a time when the loadmaster is getting ready to close the door and get ready to move the aircraft, is it not?

A That act is not significant to starting engines.

Q Would you start the engines with the ramp open?

A That is possible.

Q Would you do it in this kind of a flight?

A Probably not.

Q So under these circumstances, as indicated in this transcript, would it be reasonable to conclude that the loadmaster was starting to close the doors and prepare for the departure of the aircraft?

A That is correct.

Q As you indicated, this is about 20 minutes of the 30-minute capacity of this recorder, is that correct?

A I do not know.

Q Did anyone ever attempt to put any real time next to the transmissions on this transcript? When you were listening to it?

A No, it was very informal.

Q So to your knowledge, there is no real time coordination between this transcript and the actual time of day?

A I do not understand the question.

Q Well, you mentioned that you were a safety officer at one time and I am sure you went through procedures, review procedures of what you do in the event of an investigation, is that correct?

A I was aware that there were procedures, yes.

Q Are you aware, or were you then aware of the fact that transcripts of statements such as voice recordings or CDPIR's or flight data recorders or whatever other mechanical recording of events that take place in an aircraft that is involved in an accident are usually reduced to real time?

A I cannot tell you what I recalled at that time.

Q Do you know if any real time coordination was ever attempted with respect to this transcript so that a transmission on Page 2, for example, could be related to a time such as 16:10?

A Not to my knowledge.

Q In this transcript there are some references to scanners who come on the transmission from time to time and, indeed, on Page 4 -- I am sorry. On Page 5, about halfway down the page, there is a transmission "Scanner is ready. Okay, scanner . . ." Do you see that?

(Whereupon, the witness continued to examine the document.)

A Yes.

Q The scanners, I think you told me -- told us, were located down on the -- in the cargo compartment area, is that correct?

A That is a possible position.

Q Where are the other possible positions?

A Anywhere he can go on the scanner's cord, the long cord that I mentioned earlier.

Q Okay. And that would include being outside the aircraft?

A Yes. And he could leave that cord and still be the scanner, if he were to investigate a rock or someplace. He is still scanning.

Q Now the transmission we are referring to on Page 5 of Exhibit E "Scanner is ready" follows the transmission "Crew start report where each of the stations begin to call in to say that they are either ready or not ready." Do you see that?

A Okay. They have the crew start report and you get down to "Scanner is ready" and then what is your question, please?

Q At that time, where would, under your normal procedures, where would the scanner be located?

A Ready to -- in front of the aircraft, somewhere on the --

Q Outside the aircraft?

A Yes.

Q I see. Are there a number of scanners or just one?

A One. One required. One on headset.

Q Is there a scanner check list as well as engineer's check list?

A Yes.

Q Or navigator's check list?

A Yes.

Q Is the scanner's check list, to your knowledge, including any duties with respect to the inspection of mechanical indicators relevant to the ramp lock system?

A Not to my knowledge. I do not know.

Q Have you ever seen a scanner check list?

A I was not required to review its contents.

Q If I showed you one, all you would know is what is on the scanner's check list?

A I do not know.

Q To your knowledge, he had no such duties. To your knowledge, did anyone have that duty? Checking the mechanical locking indicators?

A The duties of operating the doors delineated to the crew -- the crew members would do that job. I do not know whether that involves loadmasters or engineers, but it is not me and it is not the scanner at this point in this check list.

Q Okay. Would there be such a requirement for the loadmaster on his check list?

A There may be.

Q Do you know, one way or the other?

A No.

Q You depend upon them to do what is necessary on their check lists; when they report to you, you assume they have done what they are supposed to do, is that correct?

A That is correct.

Q On Page 7 of this Exhibit E, there is a transmission -- there are several transmissions calling people by name -- I guess locating them throughout the aircraft. Is that correct?

A Yes.

Q And there is a reference to, I think, the fifth

transmission: "Okay, Engels he is on the panel." What does that mean or connote to you?

A That was me speaking. I was reading the crew orders, by the way. And I said "okay, Engels, he is on the panel. Dionne, did someone see him?" My question.

Q What is the panel -- "on the panel" mean?

A Means the control panel.

Q Up in the cockpit?

A In the cockpit, yes.

Q And you mentioned Dionne and someone says "I have him with me" and you say "okay, Perkins". So you recognized Perkins' voice, is that correct?

A No. I said "okay."

Q I see. Do you know who said "I have him with me".

A I do not know now.

Q Then further down, there is a statement "Okay, Aguillon." I guess you are checking as to where Aguillon is, is that correct?

A Yes.

Q And he answers that he is in the aft section of the airplane. Does that mean the aft troop compartment section or would that mean the aft cargo section?

A It was clear to me at the time. I do not know now.

Q You do not know now. On Page 10 of Exhibit E, there is a large paragraph in the seventh transmission. Can you identify who that is talking?

A That is my crew briefing.

Q That is you giving the crew briefing?

A Yes, that is correct. It starts with one line up from that paragraph indicated.

Q Okay. That transmission indicates in the fourth line: "climbing at 200 knots after a 180 down." What does that mean?

A Wait a minute. Let me read this.

Q Sure.

A "Okay, this will be a reduced rowing take-off, for Flight 47V go and rotates, 1-12. Minimum flap protracts 147. Man marker 1-12. Radar altimeter is set 200 feet. Climb. Climb to use tactical departure, direct of Vung Tau, be climbing at 200 knots after a 180 down here and we will be cleared for take-off. After we are airborne, I would like each compartment to check in and give a status of people on board.

"Emergency return will be a left via par pattern with plans to land on this runway. The terrain remains as briefed

when we came in. Minimum altitude is 3500 feet within 25 nautical miles. Are there any questions?"

Q That indicates a climbing speed of 200 knots, is that correct?

A That is correct.

Q And at some point thereafter, did you change your mind as to the climb speed?

A Yes.

Q What was the reason for that?

A I had climbed above hostile environment.

Q So you increased the climb speed to 270 knots?

A As technique, rather than accelerating to a high speed, in keeping your aircraft in close proximity of ground fire or whatever, I climbed at 200 knots and that gave me the maximum altitude in the shortest distance.

Q Would it be a fair statement, from that decision that you were concerned with the possibility of ground fire?

A Yes, I was concerned.

Q Are you aware or did you learn at any time following the accident that they had discovered in some of the parts of the aircraft on the ground, following the accident, evidence of ground fire or some kind of fire holes from a rifle or some

other weapon?

A I heard rumors to the effect that somebody had been using the wreckage for target practice and had made the investigators think twice about the wreckage. But that is purely just rumor.

Q When you say it made the investigators think twice, what did you mean?

A Well, they saw the holes and they wanted to look into the matter of possible ground fire, but as rumor has it, it was somebody using a piece of wreckage for target practice.

Q And your conclusion to that effect is based upon rumor, I take it?

A I cannot make a conclusion based on that.

Q The only physical evidence you know of is that there were some holes?

A I have no physical evidence of that, no.

Q There was some physical evidence, was there not, according to rumor?

A According to rumor.

Q In response to one of Mr. Battocchi's questions, I think you indicated that the last recorded, and therefore, the last transcribed information from the CDPIR, Page 16, ended

some time before the rapid decompression period, is that correct?

A I can determine that that -- that we were just making that discussion prior to the rapid decompression.

Q And do you recall any discussion of or any determination that might have been made as to how much time had been lost, how much of the recorded time on there was lost, in the available 30 minutes?

A Why should I assume there was any?

Q Well, is it your conclusion that none was lost and when the transcript ends is the time when the rapid decompression occurs?

A It says "We have some weather on both sides of us at the nose and -- I do not know what it says -- at about 2.0, but I think we are climbing up through it." And somebody answers "Right." And then the transcript here says "This is where the tape seems to replay itself and says do we have a loadmaster on headset." And it starts talking about the way the people are milling around outside.

Q So that would suggest that the tape started to replay after the word "Right". Is that correct?

A That is what this transcript would appear to me.

Q So that would indicate, would it not, that there was 30 minutes available and that we have got 30 minutes of recordings on here?

A I cannot make the 30-minute judgment. That is what I have been told.

Q There is a transmission just -- there are three or four transmissions just above where the tape seems to start to replay.

A Yes.

Q It says: "Sergeant Snedegar was asking what altitude we could go to with no oxygen. Shall we tell him 13? I hope he is kidding, that is. 13". Do you see that?

(Whereupon, the witness continued to examine the document.)

A Yes.

Q And do you know who that is talking?

A As a person, no. In my recollection when I was looking through this, it appears that a loadmaster in some position was making the comment. "Sergeant Snedegar was asking what altitude we could go to with no oxygen. Shall we tell him 13?" It could be anybody saying that. I do not know if it was that person's supposition or someone answering. "And I hope he is

kidding" could have been any unqualified person on interphone. And then someone answering "There is. It is 13,000 feet" could once again be someone with no expertise.

Q How about the next three transmissions. Can you identify any one of those three?

A The "Yes, and that is not for very long; it is something like two hours" could be once again someone on the interphone that is discussing it. This is not an uncommon thing to do in terms of teaching techniques. And the answer was, in my opinion, wrong and I corrected him and I said "three hours".

Q That is you saying "three hours"?

A One of the "three hours" is. Yes, the "three hours" is mine. I corrected him, to tell them three hours.

Q What does your statement "three hours" mean?

A Well, I was preparing to discuss some of the regulations that were in effect at that time governing the normal operation of aircraft.

Q What are those regulations --

A I do not recall.

Q -- in terms of the three hours and the 13,000 feet?

A I do not recall the regulations now.

Q Well, do you recall what you meant by saying "three

hours" in connection with the figure 13,000 feet?

MR. BATTOCCHI: Object. He did not say necessarily "three hours" in connection with the 13,000 feet.

BY MR. DUBUC:

Q Well, is the three hours mentioned to correct a statement that was made in connection with the suggestion of 13,000 feet without oxygen?

A The whole discussion was going to revolve around altitude restrictions and time for passengers in an unpressurized -- probably unpressurized aircraft. I am guessing at my intent at the time.

Q Was it a fair statement that the intent and the discussion was to the effect that at that time you believed the regulations to be that you could operate for three hours at 13,000 feet without oxygen in an unpressurized aircraft?

A I believe that my intent at the time was to reflect that passengers in some instances -- it was perfectly acceptable under routine circumstances to do that.

Q Okay. Now you mentioned at the time you were discussing this 13,000 feet and three hours, you were also discussing some other regulations. Do you have any recollection of what you were discussing?

A I do not know that I said that I was discussing other regulations. I merely was going to be playing the role of someone who could pass on the experience that I had.

Q You do not recall what the subject was?

A I was not in a formal instructor-student environment.

Q Well, you were in an environment of providing information to either the co-pilot, the navigator or somebody on the earphones?

A Yes.

Q Do you recall what information you had provided them or had attempted to provide?

A No, I am sorry.

Q I believe you indicated in testimony yesterday that you thought the CDPIR tape was recovered from the sea, is that correct?

A That is what I have heard, yes.

Q Do you know that for a fact?

A No, I did not see when anyone did that.

Q Do you know where the aft cargo door was recovered from?

A I was told that there were some things recovered from the sea in rumor. I do not know what nor I cannot verify

any of that.

Q Okay. You mentioned in response to some of Mr. Battocchi's questions the fact that each throttle of the aircraft could be moved separately, but I think you also mentioned that there was a way to move them all at the same time, is that true?

A Yes.

Q And how is that done?

A Put my hand on all four.

Q There is no way that you can set it up for the movement; you have to actually put your hand and move all four simultaneously, is that correct?

A I assume you are disregarding the auto pilot, auto throttle?

Q I assume under these circumstances that you would not have been on auto pilot or auto throttle?

A Yes, but we were not discussing these circumstances.

Q Right.

A You are asking me the systems of the aircraft.

Q Okay. But there is a way on auto pilot, auto throttle to move them all at the same time?

A Yes.

Q In fact, there is a way to set the auto pilot and the throttle to maintain an altitude and the system will do that by adjusting power, will it not?

A As I recall, the auto pilot can be engaged to include the throttle.

Q Were you on auto pilot at the time that the decompression occurred?

A Yes.

Q And you, of course, went off of auto pilot immediately, is that correct?

A I do not remember what I did in regard to the auto pilot.

Q Can you overpower the auto pilot?

A Yes.

Q And if you do so, does it go off automatically?

A It can.

Q If you touch a trim tab, does it go off automatically?

A Yes.

Q And of course, one of the things you tried to do was trim, is that correct?

A Yes.

Q So would it be a fair assumption that the auto pilot

would have gone off either by switching off or by automatically switching off when you tried to trim the airplane?

A It would have disengaged, at least, yes.

Q There has been some discussion of elevator and horizontal stabilizer and rudder. And just for clarity, am I correct that the elevator is a movable flight surface that is controlled either by trim tab or by control cable?

A Not on this aircraft.

Q All right. What is it controlled by?

A What is what controlled by?

Q The elevator.

A It is controlled by a hydraulic actuator.

Q And on this airplane, does the -- withdrawn. What controls the trim tabs on this aircraft?

A Two hydraulic systems and an electrical system, as I recall.

Q Okay. And with respect to the horizontal stabilizer, that is the forward part of what we see as a horizontal control member on the aft of the airplane, is it not?

A I believe you are correct.

Q The elevator is physically located behind the horizontal stabilizer?

A That is correct.

Q Now, on this airplane, is the horizontal stabilizer capable of being adjusted and moved?

A Yes.

Q And is that done hydraulically or electrically?

A Yes.

Q Through a similar actuator as you described with respect to the elevator, is that correct?

A No.

Q It is a separate actuator?

A Yes.

Q Is it similar?

A No.

Q Is it larger, smaller?

A Different type. I am not qualified to describe the differences, but it is not a hydraulic actuator as I described earlier with the bulldozer blade. In my opinion, it is a different type of actuator.

Q But it operates through the use of either electrical or physical input from cables to move a member to permit the flow of hydraulic fluid to move the surface, is that not correct?

A Sounds close enough.

Q Now when you trim an aircraft, as you did in this instance on April 4, 1978 --

MR. BATTOCCHI: Wait a minute. '78?

MR. DUBUC: Withdrawn.

BY MR. DUBUC:

Q When you trim an aircraft such as the C-5A you were flying on April 4, 1975, what member are you moving or what inputs are you getting to move a member?

A My thumb.

Q Are you moving horizontal stabilizer? Or are you moving elevator?

A For trim?

Q Yes.

A I actuate an electrical switch and it, in turn, moves the flap.

Q When you say "slab", what are you referring to?

A That is the horizontal stabilizer.

Q Okay. In response to some of Mr. Battocchi's questions when you were describing your intent following the rapid decompression, as far as your intent to descend, you described 10,000 feet as your target altitude that you were trying to

reach. What was the rationale for that?

A That is just an altitude that is ingrained for completely unrestricted, unpressurized flight.

Q Okay. There was no magic to 10,000 feet under those circumstances in considering the time involved, was there?

A No magic to it. That happened to coincide also with where I happened to be.

Q But based upon your prior discussions with respect to what we saw in the CDPIR transcript, 13,000 feet would have been just as acceptable, would it not?

A Yes.

Q Considering the time away from the airport?

A Yes.

Q You mentioned a 180-degree turn which is the first turn you made following the rapid decompression and you used a bank of 45 degrees. Would that be a standard rate or double standard rate of turn?

A You have got me.

Q You do not know. You mentioned you dropped the gear by emergency hydraulic system, is that correct?

A I used emergency system to lower the gear.

Q Is that a hydraulic system? Or is that a manual drop

A It is used hydraulics and electrics.

Q Okay. Is there any manual drop system in the C-5A for lowering the gear?

A No.

Q How many emergency hydraulic systems are there?

A There are four hydraulic systems.

Q Does each one have a reservoir in a separate capability for operation in emergency, is that correct?

A Yes, it has a separate reservoir from all the other systems.

Q And is that reservoir the source of the hydraulic fluid that is used when you operate the emergency hydraulic system?

A Yes.

Q Would it be a fair statement then that the aircraft had four main hydraulic systems and the capability for four emergency hydraulic systems?

A That question is not clear to me.

Q You mentioned you had four systems and each system had a reservoir and the reservoir is, of course, the fluid that is used in the activation of the emergency hydraulic system. For example, to drop the gear. That is correct, is it not?

A Yes. The normal hydraulic system for a gear is a different system from the emergency system for the gear. That is true.

Q The lines are slightly different -- they are located in a different place? -- in order to get to the actuator?

A Yes, there are different things involved.

Q But the source of the fluid is the emergency reservoir which is associated with the system, is that correct?

A I am not aware of a specific emergency reservoir that you speak of.

Q Well, there is a reservoir for each system?

A Yes, it is.

Q Is that not what you draw upon when you are using emergency hydraulic system on any given main system?

A It is the same reservoir.

Q That is where the fluid comes from?

A The same reservoir.

Q The theory is that if you break a line and lose all of the fluid in one hydraulic system, the reservoir has one-way check valves and you do not lose the fluid that is in the reservoir, is that not the theory?

A I do not know.

Q Okay. There was some discussion as to normal landing speed and descent rates this morning. Do you recall that? The figures of 500-600 feet per minute being what you considered to be the normal, average descent rate on a normal landing?

A As I recall from my flying, which was some time ago, 500-600 feet per minute rate of descent was a very acceptable rate of descent. The parameters on either side I do not recall.

Q Would it be a fair statement that either you or perhaps some of your colleagues in training when you were first learning to fly the C-5A probably make safe landings at higher descent rates?

A It is difficult for me to speculate on the safety of other people's flight.

Q Well, if you make a hard landing, it is considered a hard landing with a C-5A, the descent rate is going to be in excess of 600 feet per minute, is it not?

A I do not remember the number.

Q Do you have any idea on this landing gear and aircraft structure capability as far as maximum landing descent rates are concerned?

A It is a published limitation, but I do not recall.

I do not know what it is.

Q It would be in a handbook somewhere on the limitations for landing?

A Yes. Required knowledge for a pilot, yes.

Q Based upon your best recollection, would it be a fair statement that it would be in excess of what you describe as the average descent rate of 500-600 feet per minute?

A You are supposing a hard landing? Do you want me to guess at a rate of descent? I do not understand what you are asking me.

Q I am asking you if a normal rate that you consider to be the rate -- the descent rate at which you normally land the aircraft, 500-600 feet per minute, that the aircraft and operational procedures are designed to anticipate the possibility of either a hard landing because of an inexperienced pilot or a hard landing because of extra load or cross wind or a number of other factors and that that maximum descent rate would be in excess of what you described as normal in 500-600 feet per minute?

A That supposition would appear to have some merit; however, my recollections of the aircraft limitations do not include those rates of descent permissible. And I certainly am

not qualified to speak on the design of those limitations.

Q Okay. Now you described one of your problems that you were confronted with in landing this aircraft and in attempting to make a landing on the runway and being unable to do so as being a problem of controlling the nose-down tendency of the aircraft as you made the approach, is that correct?

A Would you ask that question again. I was preoccupied with part of it.

Q You must have been listening to Mr. Lewis. I believe your testimony, and I am summarizing it for purposes of trying to cut the time down, was that you had trimmed for a climb of 270 knots --

A Yes.

Q -- with the aircraft configured as it was with the gear down as you approached the runway at approximately 200 feet, you had some difficulty in keeping the nose on the horizon or above the horizon; indeed, it went below the horizon. And to compensate for that, you added maximum power, is that correct?

MR. BATTOCCHI: At 200 feet?

THE WITNESS: I am losing you. At what point --

MR. BATTOCCHI: I am confused.

MR. PIPER: I do not think that is the way he testified.

MR. BATTOCCHI: No, I do not either. He testified that he added max power when he aborted the turn.

THE WITNESS: Yes.

BY MR. DUBUC:

Q That was the turn for the landing -- you aborted the turn, added max power, and the reason you did that was in the turn, in that configuration with the gear down, you were experiencing difficulty in keeping the nose on horizon; it was falling below the horizon. Is that correct?

A My entire descent from 10,000 feet to landing was one of ups and downs, but overall, it was characterized by a descent with the intent to land at Saigon. During the portion of that proposed tract to Saigon closest to the runway, in a slight bank, I realized that my nose was dropping lower than I wanted it to be dropped; added power to no avail, not significantly bringing the nose back up; I was already at a very high power set, still not affecting the rate of change that I desired; rolled the wings level -- that helped some; still not enough power or enough whatever -- my thoughts were really not so much as how much quantitatively I was doing, but was it

accomplishing what I wanted to accomplish.

What I was doing up to that point, in that turn, was not accomplishing what I wanted to accomplish.

Q And one of the reasons for that, was it not, was that you had your horizontal stabilizer trimmed for 270 knots and you found you were not able to energize the activator to retrim the stabilizer and that that trim and an air speed of 270 knots, the tendency would be for the nose to go below the horizon, would it not?

A No, I see no correlation.

Q If you could have been trimmed for 200 knots, the tendency would have been less for the nose to drop than it would be at 270 knots, under those circumstances?

A I cannot agree with you. I do not know that there would be any difference. If there is, I do not know.

Q Well, let me ask you if you agree with me on this. If there were some way to move the center of gravity of the aircraft at that time aft, would that have partially alleviated the problem?

MR. BATTOCCHI: I object. The question does not indicate how far aft. It presupposes that he knows what the center of gravity is and it is not clear as to what point in time

you are talking about.

THE WITNESS: I have subsequent to the incident learned that movement of the center of gravity can help change the pitch attitude required and, therefore, the speed at which the aircraft will fly.

BY MR. DUBUC:

Q Okay. If you move the center of gravity aft, obviously the pitch attitude would be a tendency to move the nose up, would it not?

A That is outside my training.

Q In your training, was there ever any discussion with respect to any kind of control emergency whereby you might move cargo or move -- or jettison fuel or anything of that nature in order to change the center of gravity of the aircraft?

A I would be aware that moving cargo in the aircraft would change the center of gravity, yes.

Q If you move it forward, it would change the center of gravity and move it forward --

A That is correct.

Q -- and that would increase nose-down effect, would it not?

A That is correct.

Q If you move the cargo aft, it would change the center of gravity and have a tendency to have the nose up?

A How much though?

Q Well, that, of course, would be a matter of charts, but on a general principle for laymen who may be listening to this testimony, I am just trying to establish the principle that moving cargo forward or aft would be something very roughly similar to the moving of weight on a see-saw, would it not? If you move it one way, you change the center of gravity one way and if you move it another way, you move it the opposite?

MR. BATTOCCHI: I object. Since we are talking about using this for laymen, I think this is totally inappropriate because the amount of weight you are talking about are minuscule in relation to the weight of that entire aircraft, and I think it is completely inappropriate to suggest that moving some little bit of cargo in this airplane is going to be similar to putting weight on one or other end of the see-saw where that kind of weight will have a dramatic effect.

I, therefore, think the question is misleading and I object to its form.

MR. PIPER: I join the objection.

MR. DUBUC: Well, let's see what his answer is.

BY MR. DUBUC:

Q When we talk of center of gravity, we are talking about --

A Are we talking theoretically now, on a normal aircraft, not the one that I was involved with?

Q Well, we are talking about the one you were involved with, but we are trying first to approach the concept of the movement of the center of gravity on something that may be easily understood.

The center of gravity in an aircraft in any given trim situation at any given weight would be similar to determining the fulcrum point where the weight is the same based upon the length of the lever and the weight on that lever and the length of the lever and the weight on the lever at the other side, is that not true?

A I would ask my loadmaster, yes.

Q And just for simplistic understanding of what we are talking about in center of gravity, if we looked at a see-saw, the center of gravity with exactly the same weight on each extreme end of the see-saw would be at the middle of the see-saw where it is joined to either tripod or something to the ground, is that not true?

A We are discussing the construction of see-saws?

Q We are --

MR. PIPER: I am going to object to this whole line of questioning. We are getting far afield from Captain Traynor's qualifications for pilot. He has testified he is not an engineer and these matters would have to be referred to the loadmaster in the first instance. And, therefore, I object to the entire line of questioning of this witness.

MR. DUBUC: All right. But he has also testified that his training was familiar with the concept of moving cargo forward and aft to change the center of gravity in an aircraft.

MR. BATTOCCHI: He did not testify he was trained in that; he testified that he was aware.

MR. DUBUC: He was aware of it.

MR. BATTOCCHI: -- that if you move a large amount of cargo from one point in the plane to a different place, it might affect center of gravity.

BY MR. DUBUC:

Q How did you become aware of that?

A I do not even think I said that. We are talking about changing the center of gravity.

Q Yes, to affect a pitch change.

A That is what we are getting at?

Q Yes, that is correct.

A That technique was brought to my attention after the incident.

Q Well, I understood you -- and I may have been wrong -- to indicate that in connection with other kinds of circumstances, you were aware of the fact that you could move cargo from one place to another in an aircraft to change the center of gravity.

A That is correct.

Q And that it would change, obviously, the trim of the aircraft.

Q Well, I did not say that, no.

Q Well, is not the loading of cargo and passengers, as they relate in distance to the center of gravity, a matter of computation and that if you have a fully loaded aircraft sometimes you change where cargo is located or you may change where passengers are located or whatever so that you have the kind of balance that is within the limits designated for the aircraft under weight and balance -- there is certain forward limits and certain aft limits under center of gravity computations, are there not?

MR. BATTOCCHI: Object as ambiguous.

THE WITNESS: There are limits for loadmaster's computations.

BY MR. DUBUC:

Q And in order to meet those limits with a full load, sometimes you place cargo or passengers or both in certain positions in order to be within those limits, is that not true?

A Passengers rarely have any bearing on the distribution of the weight as far as I am aware. Only heavy items would be significant to change the center of gravity.

Q Well, certainly heavy equipment carried as cargo would be.

A Which we did not have at Saigon, of course.

Q That is true. But just for example, if you had a half load of cargo, you would not put it all in the front of the airplane?

A I would not do it at all.

Q You would not do what at all?

A I would not move the cargo.

Q No, but your loadmaster or whoever did the computations would not put it all in the front of the airplane. He would distribute it somehow for balance --

A He would do it according to his requirements.

Q That is right, okay. So the movement of cargo or weight in the aircraft does have an effect on center of gravity and, therefore, an effect on trim moment, does it not?

MR. BATTOCCHI: On the movement -- object. Do you mean the movement of cargo or the location of cargo?

MR. DUBUC: The location or movement can have an effect.

MR. BATTOCCHI: All is determined by the loadmaster.

MR. DUBUC: That is what he is saying, but --

MR. PIPER: I will reiterate my other objection to this. He testified -- I think Mr. Battocchi brought up before that we are talking about a minuscule weight compared to a mammoth airplane. I think we are wasting time on this particular subject.

BY MR. DUBUC:

Q And you have also testified, I believe, that you were aware that dropping of the gear would have some effect on the center of gravity because your normal inclination is to retrim when you do that?

A I believe I testified exactly the opposite to that. I was not aware of any center of gravity change due to anything.

done in flight. I am not qualified to speak on these matters. As far as my concern is, the center of gravity is computed by the loadmaster and the engineer and given to me as a number.

Q Am I mistaken that you testified that when you dropped the gear, you almost automatically retrim?

A If there is drag, it will cause a change in the flight parameter. That does not necessarily mean to me that there has been a change in the center of gravity.

Q I see. It has an effect upon the trim of the aircraft, though, does it not?

A Yes, it does that.

Q You move some weight, and you create some drag, and the combination of that has affected the trim of the aircraft?

A I did not move any weight, to my knowledge.

Q Well, when the gear drops, does it not redistribute some weight?

A I do not know. It does not go anywhere but down.

Q All right. Now are you aware, if you burn fuel, you realign the center of gravity of the aircraft and affect the trim moment?

A Yes, I am aware of that.

Q And as you burn fuel, what is the effect upon the

center of gravity? Do you get a tendency to nose up or a tendency to nose down?

A I had never noticed.

Q Okay. How about if you jettison fuel, does that have an effect on the center of gravity?

A I had never noticed.

Q Well, would it, based upon your knowledge of aerodynamics in the C-5A airplane?

A Based on my knowledge of discussions subsequent to my incident, I would say yes, it does have a bearing. I do not know how much of a bearing.

Q Okay. You mentioned in connection with some of Mr. Battocchi's questions a yoke shirr pin between the pilot's and the co-pilot's control pedestals which under some circumstances could be shirred and therefore have an independent operation of either one, is that correct?

A That is my understanding, yes.

Q Did you ever receive any training in connection with that concept? -- shirring that pin?

A Yes.

Q How did he tell you to do it if you wanted to do it?

A It could be overcome by a certain force. I do not

recall the exact poundage.

Q When you say "overcome", would you have a cross control between the pilot's and co-pilot's control pedestal in order to shirr it?

A You would have to do that in normal flight, yes.

Q Were you told how that was to be done? In other words, were you told to cross control outboard or cross control inboard or cross control up, forward and aft or what?

A Yes. But I do not remember which.

MR. LEWIS: Excuse me. Could I interrupt just a minute

(Discussion off the record.)

BY MR. DUBUC:

Q I think I stated to shirr that pin -- in other words, are you cross controlling inboard or outboard in order to shirr that?

A Yes, and I stated I did not recall what the precise procedure was.

Q Now from the time this rapid decompression occurred up and until the time of your crash landing near the airport, were you flying the airplane all the time?

A I had assigned the roll control to the co-pilot. And

I concentrated my efforts to crew coordination and controlling the power system.

Q Okay. So he was operating the ailerons and spoilers, is that correct?

A Yes.

Q With his pedestal, is that correct?

A That is correct. Mine was hooked to it, of course.

Q Your's was hooked to it. Was any consideration ever given to the possibility that there might have been some jamming between the -- either the pilot's or the co-pilot's so that the use of the procedure for the shirr pin could be attempted?

A No. No, no indications of any of that type problem at all. It was purely hypothetical in discussing the system.

Q Now did the co-pilot continue to control the roll aspect of flight as you approached Tan Son Nhut for a landing?

A I think it should be noted that when one person is flying the aircraft, the other person's hands on the control are there as well, or they have the capability to be that way.

If I were to put an input into the control while he is flying the aircraft, he would probably cooperate in deference to what I had planned to do. After we had aborted the

turn, his hands were probably still on the yoke, but at this time, I am sure that it was I guiding the aircraft. At least, we -- we both had the same intent and that was to keep the wings level.

Q Okay. And when the time came, I think you described it at approximately 200 feet when you determined that you were not going to be able to make the runway and you reduced power, who was controlling the roll aspects of flight at that point?

A We probably both had our hands on the yoke.

Q And how about from that point on?

A I imagine we both continued to have our hands on the yoke.

Q Okay. So the two of you, controlling the roll aspect the use of the ailerons and the spoilers, is that right?

A And it was probably not a requirement to control; it was probably remaining fairly level or instinctly level. Our inputs were not gross --

Q When you say instinctively level, are you referring to the dynamic stability of the airplane?

A I am referring to my eyes looking out the window. If my picture were turned a little bit, I would make the proper correction without a conscious thought perhaps of now I am

going to level the wings.

Q All right. When you flew the aircraft, the other aircraft you described, the C-133 and the C-7, did you fly at all times as pilot in command or did you fly some of those hours as co-pilot?

A I flew some hours as co-pilot.

Q How about in the C-5's? You say you had 1,000 hours in the C-5 -- does that include both pilot in command and co-pilot time?

A That is total C-5 time.

Q And approximately how much of that time would be pilot in command as opposed to first pilot or co-pilot?

A I do not remember the rules for upgrade.

Q Well, you say that the 1,000 hours is the total time. Some of that is time as a co-pilot, is it not?

A Yes, that is true.

Q When you first started flying the C-5, you did not start out as the pilot in command, did you?

A That is correct.

Q How long did you fly as co-pilot?

A I upgraded in minimum time, whatever that time was.

Q And thereafter, was any of your time flown in the

right seat or as co-pilot, even though you had been designated as an aircraft commander?

A Yes, my first ride, of course, in the C-5 was in the left seat, under training status.

Q But that was recorded as co-pilot time, was it not?

A Well, they call it first pilot time.

Q Yes, first pilot time. It was recorded at that time, despite the fact that you were in the left seat because somebody else was the pilot in command?

A That is correct, but when we are speaking of recording, you record whoever is flying the approach regardless of the crew qualification as the first pilot for first pilot time.

Q Okay.

A Irrespective of flight examiner status or what have you.

Q I see. Can you estimate for us of the 1,000 hours in C-5 time that you had at the time of the accident, how much of the 1,000 hours was as pilot in command and how much was as co-pilot?

A No, I cannot.

Q Would you say the time was approximately equal or was there more time as pilot in command than as co-pilot?

A I do not know. I upgraded to instructor pilot shortly thereafter.

Q After the accident?

A Yes.

Q We are talking in terms of before the accident.

A I know that, sir.

Q You are not able to estimate that?

A It is a matter of record someplace, I am sure, but no, I cannot tell you.

Q Okay. There was a reference in your testimony in response to Mr. Battocchi's question to an accident involving a C-5 at Clinton Sherman. Is that Clinton Sherman Air Force Base?

A That is an area.

Q I see. And that is in Oklahoma, is it not?

A To my recollection, that was the area.

Q I believe you said you did not know exactly what had happened in that, but you were told something. Do you remember what you were told as to circumstances of that accident? I think you were shut off because I have got a line here and apparently you stopped.

A My recollection of the accident is totally based on rumor and I have not read any factual account of the accident.

Q Do you recall whether that accident involved a brake fire?

A We were told -- we were briefed by our safety people after the accident and certain procedures were adopted to possibly preclude similar instances. And one of the targets was the brakes.

Q And the procedures to be followed in the event of a brake fire, is that correct?

A Yes.

Q That accident, to your best information and belief at this time, did not involve the rear cargo door or any components other than the wheel, the brakes or the wheel wells, is that correct?

A It had absolutely nothing to do with the rear cargo door.

Q Are you aware of any accident prior to the accident you were involved in involving the rear cargo door?

A None. Well, let me strike that. During my testimony, I was told by Mr. Battocchi that there was a DC-10, but I just found that out just now.

Q But my question pertains to C-5A's.

A Well, you said any aircraft.

Q Oh, okay. I admit it. Are you aware of any C-5A aircraft accidents, prior to your accident, involving any problems with cargo doors or anything of that nature?

A No, to both, with the exception.

Q And you have no knowledge of the DC-10?

A I was not aware that that was a cargo door problem. I might have been told, but I do not remember it.

Q That is a different kind of airplane in any event, is it not?

A Much.

Q You were also asked, I think, by Mr. Battocchi and your answer to the question involves a description of other serious kinds of problems which you might have to anticipate. I think the example used was the loss of four engines. And then the questions went on as to whether you considered that more serious or less serious than the kind of situation you were confronted with. And I think there was also some discussion of a glide ratio of the C-5A in connection with that.

If you lost all four engines on a C-5A, could you not lose all hydraulic power?

A We have the capability on that aircraft to deploy a wind-driven hydraulic generator which would supply hydraulic

to our power flight controls. So with all four engines gone, you could still fly the aircraft.

Q Okay, I just wanted to clarify that.

MR. LEWIS: Could we go off the record a second.

(Discussion off the record.)

(Whereupon, Mr. Lewis leaves.)

BY MR. DUBUC:

Q Mr. Battocchi also showed you this morning and marked as an exhibit a document which refers to a Category III Test Report. Do you remember that document?

A No.

Q I think this was the one, C-5 Category III Joint Test Force Report.

A Okay.

Q Do you know what Category III Joint Test Force type of procedure is involved?

A Never heard of it before today.

Q Never heard of it, okay. In connection with showing you that report, he also referred to the complexity of the maintenance situation on a C-5. What has been your experience with respect to the complexity of the maintenance situation in the C-5?

A The C-5 aircraft is the most complex airplane I have ever flown.

Q The largest airplane you have ever flown?

A Yes.

Q Does it have more parts than any other aircraft you have ever flown?

A Yes.

Q Does it have more systems than any other aircraft you have ever flown?

A Yes, it does.

Q And would you expect an aircraft with more parts, more systems, larger and bigger than any other aircraft to be slightly more complex?

A It should be proportionate, yes.

Q What has been your experience with the availability of parts to those maintenance depots where you have had occasion to operate the C-5 in connection with performing maintenance work? Have you had any occasions where you have had to wait for spare parts that have not been available?

MR. PIPER: Object to that question. On previous testimony, Captain Traynor has stated that his entire relationship in the maintenance function is to write up an item and

turn it in. He is not a maintenance officer; he does not purport to be a maintenance officer.

MR. DUBUC: I am not asking him -- if it is misunderstood, I should clarify. I am not asking him what his experience has been as a maintenance officer with respect to the availability of spare parts. I am asking him what his experience as a pilot has been when he has operated to various places in the world or various other bases when he has had items that had to be repaired, such as the windshield we have discussed, or any other kind of item, as to whether or not he has had any occasion or many occasions wherein he has had to wait for spare parts.

THE WITNESS: Yes, I am.

BY MR. DUBUC:

Q Does that occur -- or have those occasions occurred at a home base such as Travis or usually at some outlying base in the course of performing a multiple mission?

A It could happen any time, any place.

Q Now at the home base in Travis, you have described a program which we term the "cannibalization program" where spare parts, if not available for the system were sometimes taken from another aircraft, is that correct?

A That has happened, yes.

Q Now if another aircraft is not available, another C-5A aircraft is not available at the base at which you are located, then that system of removing parts from one aircraft to another is not available, is that correct?

A I do not know.

Q Okay. Have you had any occasions or circumstances wherein you have had to delay a flight or not perform a flight because of the unavailability of spare parts where the parts involved part of the aft ramp door system?

MR. PIPER: I am sorry. Would you repeat that? I completely lost that question. I apologize.

Could you play it back or repeat it, please?

(Whereupon, the immediately pending question was read back by the Reporter.)

THE WITNESS: The probability or the possibility exists. I do not recall any specific instance that that happened -- that I was delayed because of that. It may have happened.

BY MR. DUBUC:

Q You described some of the problems. We did this at the beginning of my examination and one of the things you

mentioned was the difficulty in closing the aft ramp door. I assume from your last answer that the problems of closing the aft ramp door did not involve replacing parts, but some other, either electrical adjustment, as you mentioned, or some other maintenance procedure. It did not involve changing parts?

A It may have ultimately.

Q Well, do you recall any instances where it did?

A Not any specific instances, no.

Q Okay. Your only recollection of a problem on the door is when you described where there was some problem with the electrical hook-up?

A Yes, and even at that, I am not recalling a specific problem; I am merely recalling my general knowledge of the area based on some recollection, which probably was based on my own experience.

Q And except for the incident that you were involved in and the one that Mr. Battocchi alluded to that you did not find out about until after the accident, which apparently occurred at Dover, was all your knowledge as to any problems with the C-5A rear cargo door system related to the problems which occurred on the ground?

A No.

Q Okay. What were the other problems?

A The possibility existed for an in-flight indication problem also.

Q Now, did you have any of those?

A Yes.

Q And what were they?

A I had a press door light once.

Q A press door light?

A I think that is the name of the light -- I do not remember the name of the light, but it indicated that one of my indicating systems was telling me that it was not making electrical contact.

Q Now, did you diagnose that to be that the electrical contact was not being made as to a component in the cargo -- aft cargo door or one of the other doors?

A I think this particular instance was the forward.

Q The forward cargo door?

A One of the forward doors.

Q Do you recall of any instances of that kind where you got a pressure light as to a door where the diagnosis of the problem related to the aft cargo door?

A No specific instance.

Q Now other than that one instance with the forward door, -- withdrawn.

As to that instance with the forward door, you described it as a light which indicated you were not getting contact with the door. What was ultimately determined to be the problem?

A I did not fix it.

Q Did the door open in flight?

A No, it did not.

Q Did you lose any pressurization?

A No, I did not.

Q It was just the light warning?

A That is correct.

Q Did you land the airplane safely?

A Yes, I did.

Q Okay. Can you recall any other instances?

A None --

Q That would relate to the aft cargo doors?

A That particular one I can recall clearly. I may have had others that I am not remembering at the moment.

Q You do not specifically remember any at this time, is that correct?

A No. I remember one particular flight that I got en route from Clark to Yacoda and I diverted into Kadena to have it looked at.

Q And did you depart again shortly thereafter?

A I do not remember. It was inconsequential, however.

Q You were asked some questions as to other kinds of doors which had flown out and I think you gave an answer to the effect that your knowledge was that the door failure was not serious because it was like opening a window. What did you mean by that?

A The door departed and caused a rapid decompression as one of the problems. That problem of the rapid decompression was something easily handled by a qualified person in the aircraft, and that in itself would not be catastrophic.

Q And you were trained to handle those problems? Is that correct?

A Rapid decompression and altitude chamber training, that sort of thing.

Q In fact, that is a problem you discuss, as you indicated, before each flight with your crew?

A Before each mission, yes.

Q Each mission.

A First leg of each mission, I believe, is when we did it.

Q I think in response to one of Mr. Battocchi's questions, you also indicated that you had not experienced, personally, any problems relating to the locking of the aft cargo door, but that you may have heard rumors of others having had such problems. Do you recall those questions?

A I recall the line of questioning.

Q Was the information you received as to those problems related to problems which occurred on the ground?

A Yes.

Q You did not receive any information of any locking problems which occurred in the air? -- prior to this accident?

MR. BATTOCCHI: What was that question?

THE WITNESS: Are you going to answer him?

MR. PIPER: What was the comment?

THE WITNESS: He asked to repeat the question.

MR. DUBUC: Why do you not repeat the question?

(Whereupon, the immediately pending question was read back by the Reporter.)

MR. DUBUC: The question is withdrawn. We are going to readdress it.

BY MR. DUBUC:

Q You mentioned some information received as to locking problems by other pilots which had occurred on the ground. Is it a fair statement that you had not received any information of any locking problems on the C-5A aft cargo ramp which had occurred in the air?

A The only time I could imagine locking the aft ramp in the air is after the doors had been opened in flight, purposely. I have never done that. And I do not -- it may have been discussed with me. I do not know of any problems associated with it -- closing in flight.

Q Okay. When you say opening intentionally, that is part of what is called the airborne delivery system, which is part of the design of this aircraft, to open the cargo door and permit parachuted cargo delivery or something similar to that while airborne, is that correct?

A The C-5 has the capability to perform air-drop missions, as far as I am aware.

Q Okay. That would be the occasion of opening the door in the air, in order to perform that mission, is that correct?

A Yes. We are not trained to do that.

Q The C-5A pilots are not trained to do that?

A That is correct. That has not been optimized for routine use, as refueling was not used for many months.

Q I see. Have you ever observed any maintenance personnel performing maintenance work on the aft cargo door?

A Perhaps.

Q Have you ever observed what is described as rigging procedure for the aft cargo door?

A Never.

Q Do you have any knowledge of how it is done?

A None.

Q I think you mentioned, in response to one of Mr. Battocchi's questions, that you had heard somewhere that there may have been some problems encountered by maintenance personnel in the rigging procedure. Do you recall those questions?

A No, I do not.

Q Do you have any knowledge of the training procedures given to maintenance personnel as to rigging the aft cargo door?

A No knowledge of maintenance procedure as it pertained to their training.

Q Do you have any knowledge of the checks that are

made by either the loadmaster or scanner or any other crew member to determine whether the aft cargo door is locked prior to the flight?

A I know that they do that.

Q Do you have any knowledge of the procedures they use in order to do that?

A Only superficially; no indepth knowledge of their procedures.

Q Okay. Do you have any knowledge of any of the observations they make of any kind of light, indicator or physical position of any component in order to determine whether the aft cargo door is locked?

A At the time, I was much more versed in their procedures and their indications; and at the time, I was aware of what their lights meant and what their indications would mean. I do not recall them now.

Q MR. DUBUC: Okay, I have no further questions.

MR. BATTOCCHI: I do.

MR. FRICKER: No redirect.

REXCROSS-EXAMINATION

BY MR. BATTOCCHI:

Q Sir, for how long after April 4, 1975 did you continue

to fly C-5A's?

A Until December, '76.

Q And during 1976, did you fly C-5A's primarily as a flight instructor?

A Yes, I did. I was aide to General Aldrich during that time. And I maintained my instructor currency and I continued to fly until December. I chose December on my own. That is, when I had nine out of eleven years, which is critical for my career advancement.

Q Now, at any time before you stopped flying, did you learn of any changes made to C-5A aircraft that were related in any way to your accident?

A Yes. Whenever any incident happens, procedures are changed.

Q Well, did you learn that pins are now used to lock the locks in the aft ramp system?

A I do not know when that was --

MR. PIPER: Objection.

THE WITNESS: -- instituted.

MR. DUBUC: Objection.

BY MR. BATTOCCHI:

Q Did you ever learn that it was instituted?

MR. DUBUC: Objection.

THE WITNESS: No. I think it happened after I stopped flying.

BY MR. BATTOCCHI:

Q Did you ever learn that the control cables and hydraulic lines were either made redundant or rerouted at any time after this accident?

MR. DUBUC: Objection.

THE WITNESS: No. I do not recall anything changing in the aircraft.

BY MR. BATTOCCHI:

Q Relating to the location of hydraulic lines or control cables?

A Yes. I do not know whether they did or did not. There was nothing I could do to control that.

Q Do you recall certain questions Mr. Dubuc asked you when he asked for certain calculations and how far from shore you might have been according to his calculations? Do you recall some questions about that?

A Yes, I do. I remember making -- I do not know accurately.

Q Okay. Do you know whether you were less than 12

miles from shore at the time of the RD?

A I do not know precisely at what point the RD occurred.

Q You do not know whether you were more or less than 12 miles?

A No, I do not.

MR. BATTOCCHI: Off the record.

(Discussion off the record.)

BY MR. BATTOCCHI:

Q Captain Traynor, you testified earlier that you did not give consideration to jettison fuel during the return flight.

A That is correct.

Q You were not instructed in any of the training you had to give consideration to jettison fuel in those circumstances, were you?

A No.

Q You were asked some questions about bullet holes in part of the aircraft. Do you recall those questions?

A Yes.

Q And ground fire?

A Yes.

Q Did you ever hear of ground fire that can go 23,000 feet high?

A No.

Q As a matter of fact, when the rapid decompression occurred, you were over water, were you not?

A That is correct.

Q Did you see any water fire?

A The possibility to shoot at an aircraft would seemingly exist, whether over water or over land, but I doubt seriously that from the rumors that I heard, that that would have caused the rapid decompression.

Q Do you have any basis whatsoever to believe that the rapid decompression was caused by any fire coming either from above the water or above the ground?

A None.

Q I was confused about some of your testimony relating to a conversation you were about to have with other people at about the time your tape stopped playing.

A Say that again, please.

Q Yes, sir. Do you remember some questions Mr. Dubuc asked you about 13,000 feet and about two hours and three hours?

A Yes.

Q Did you testify that at that time you were thinking of talking with someone about conditions of unpressurized flight?

A That figure -- 13,000 feet and three miles -- to the best of my recollection -- and I am trying to recall regulations that I have not used in quite some time -- let me say this. There is an altitude and there is a time limit associated with flight, unpressurized, above 10,000 feet.

Q Had you given any thought whatsoever at any time prior to the rapid decompression of flying all the way to Clark without pressurization?

A Yes, that had occurred to me.

Q Did you ever take any steps to -- strike that.

Was this aircraft ever pressurized?

A Yes, it was.

Q At what altitude does the pressurization begin?

A At sea level.

Q Okay. At any time after you took off, did you ever take any steps to depressurize that aircraft?

A No.

Q I think you testified that you never were given any

training with respect to using the aft ramp for -- I forget the term -- but for dropping the tanks or equipment or machinery, in flight.

A That capability exists, and we can read about it in the book, but no, in the C-5 it is not a normal procedure to perform its air-drop function.

Q Did you ever have any training whatsoever with respect to using the aft ramp of the C-5 for an air-drop function?

A No.

Q Do you know of any other C-5A pilots who did?

A I know there had to be some in the initial testing phases of the aircraft.

Q Okay. Do you know whether any pilots were given training in using the air-drop capability of C-5, at any time after you first began flying C-5's?

A That sounds like the same question.

Q I am sorry. I think you testified that probably at the very beginning of the time when people began flying C-5's, some pilots must have been given some training in using the air-drop capabilities?

A Or initiated the training.

Q Or initiated the training.

A Yes.

Q Okay. Those pilots presumably were flying before you ever started flying C-5's?

A Presumably, yes.

Q You first started flying C-5's when?

A '72.

Q At any time from 1972 forward, did you ever hear of any pilots who got trained in using the C-5 for air-drop purposes?

A I do not think so.

Q Did you ever hear of the aft ramp being used for that purpose at any time after 1972?

A Yes. That was the primary bail-out exit, if my memory serves me correctly.

Q For troops, do you mean?

A For someone with a parachute. But, you see, I did not get involved in that either.

Q Did you ever hear of anybody using a C-5 at any time after 1972 to bail out troops through the aft cargo area?

A I do not think so.

Q Do you know of anyone who opened the aft ramp of the

C-5A in flight at any time after 1972?

A Do I personally know someone and have spoken with him? No, I cannot recall ever discussing that.

MR. BATTOCCHI: I have no further questions. Thank you.

RECROSS-EXAMINATION

BY MR. DUBUC:

Q When you pressurize a C-5 in climbing, say, to an altitude of 33,000 feet, what altitude is the cabin and troop compartment and cargo compartment pressurized to?

A I do not know.

Q Is it over 5,000 feet?

A I do not know. It is a figure less than 10,000 feet.

Q And when you pressurize to an altitude of, say, 23,000 feet, will the cabin altitude be the same as it would be if you were pressurizing at an altitude of 33,000 feet?

A The engineer controls the cabin pressurization and it is his option to run the pressurization within his rules, consistent with any inputs that I might give him. I gave him no specific instructions and he probably did it in his normal procedure.

Q Okay. And that would be the same altitude. So you

pressurize cabin altitude to the same figure whether you were flying at 23,000 feet or 33,000 feet unless you gave him some different instructions?

A No, that is not fair.

Q Well, when you say he would follow his normal procedures, does he have a chart that gives the normal or desired cabin altitude for each actual altitude?

A If memory serves me correctly, he maintains a cabin differential.

Q And what does that term mean -- "cabin differential"?

A That the cabin pressure inside is a function of the ambient pressure outside.

Q And would that cabin differential or that differential in pressure be greater or lower as the aircraft increased in altitude? Under normal procedures?

A I do not know.

Whe When we speak of cabin differential, as you say, you are talking about the difference in pressurization between the outside pressure and the inside pressure, is that correct?

A That is correct.

Q And does the ambient pressure of air as we increase altitude from earth to a higher altitude increase or decrease

as you go higher?

A The ambient pressure outside decreases.

Q So the higher you go, the lower the ambient pressure is, is that correct?

A That is correct.

Q If you use the same cabin altitude or substantially the same cabin altitude, would the differential then be greater between an altitude, let us say, of 23,000 feet than an altitude of 33,000 feet?

A I believe I may be misleading you. The engineer has an option, if I recall correctly, to maintain a certain specified cabin altitude or a pressure differential or he may elect to use one and then the other. So I cannot tell you what his particular plan was, nor can I tell you that it would be a different cabin altitude for a different altitude outside. It is possible.

Q That is all determined by the engineer?

A Yes.

Q And he tells you, is that correct?

A It is of little consequence to me. He has a procedure.

Q Would it have any consequence with respect to the

affect of a rapid decompression, that differential?

A Yes.

Q Would that be of a consequence to you?

A The rapid decompression would, yes.

Q And then would, therefore, the differential, whatever it might be, greater or lower, be of interest or consequence to you?

MR. BATTOCCHI: Objection. What time.

THE WITNESS: If I am to understand you, the question of having a higher differential of pressure would seem to suggest that it would be safest to fly unpressurized, and as soon as you begin pressurizing, it would become increasingly more unsafe.

BY MR. DUBUC:

Q Okay.

A Is that what you are trying to say?

Q No, but is it unsafe because of the difference in pressure or is it unsafe because of the potential for rapid decompression?

MR. PIPER: Objection. Mischaracterization.

THE WITNESS: But you see, I would not have said it was unsafe.

MR. PIPER: You are mischaracterizing his statement entirely. I believe you have cleared it up.

BY MR. DUBUC:

Q Okay. You would say it is not unsafe?

A I would not have characterized it as unsafe, that is correct.

Q So it is safe to pressurize as long as you understand the differentials and have them in mind, is that what you are saying?

A As long as you do not exceed the limitations set forth in our regulations. That is what we do.

Q And am I correct -- you do not know what the engineer's plan was for the particular flight that you had on April 4, 1975 as to cabin pressure differential or as to select cabin pressure?

A No, I do not remember his quoted procedure.

MR. DUBUC: All right, I have no further questions.

MR. BATTOCCHI: Just one more so that there is absolutely no doubt about this.

FURTHER RECROSS-EXAMINATION

BY MR. BATTOCCHI:

Q I would like to show you again Page 16 of Exhibit E.

These are the questions you were asked by Mr. Dubuc about matters relating to 13,000 feet and two hours and three hours.

A Yes.

Q Just so we are absolutely clear about this, at the time the conversations recorded on Page 16 were taking place, did you have any anticipation whatsoever that a rapid decompression was about to occur?

A Absolutely none. That was purely coincidental.

Q I mean there is no basis whatsoever for anyone to claim that you had some reason to discuss it and rapid decompression was about to occur, is there?

MR. DUBUC: Object to the form of the question.

THE WITNESS: No, the comment was generated by Sergeant Snedegar's question on the altitude that we could go with no oxygen. So I began an informal discussion on unpresurized flight and I was going to relate the differences between the criteria for crew members, specifically the pilot, and the criteria for passengers. And the conversation was coincidentally interrupted by an actual occurrence.

BY MR. BATTOCCHI:

Q So if someone were to try to suggest that you were anticipating a possible rapid decompression, they would be

wrong?

MR. DUBUC: I object to the form of the question.

THE WITNESS: I agree.

MR. BATTOCCHI: I have no further questions. Thank
you very much.

(Whereupon,


at 7:08 p.m. the taking of the deposition
of Dennis Warren Traynor was concluded.)

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CERTIFICATE OF REPORTER

This is to certify that the attached proceedings

In Re: Air Crash Disaster Near Saigon, South Vietnam, on April 4, 1975, held on Wednesday, October 25, 1978, in the offices of Cole and Groner, P.C., 1730 K Street, N.W., Washington D.C., 20006, were duly recorded and accurately transcribed under my direction; further, that said proceedings are a true and accurate record of the testimony given by said witness; and 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 an attorney or counsel, employed by the parties, and am not financially interested in the outcome of the action.



NEAL R. GROSS

NOTARY/REPORTER IN AND FOR THE
DISTRICT OF COLUMBIA

My Commission expires March 31, 1981

AUTHENTICATION BY SIGNATURE

I, UNDERSIGNED, DENNIS WARREN TRAYNOR, DO HEREBY CERTIFY BY MY SIGNATURE HEREINUNDER THAT I HAVE READ THE FOREGOING DEPOSITION OF TESTIMONY GIVEN BY ME ON WEDNESDAY, OCTOBER 25, 1978, IN RE: AIR CRASH DISASTER NEAR SAIGON, SOUTH VIETNAM ON APRIL 4, 1975, IN THE OFFICES OF COLE AND GRONER, P.C., AT 1730 K STREET, N.W., WASHINGTON, D.C., 20006, AND FIND SAID TRANSCRIPTION TO BE A TRUE AND ACCURATE RECORD.

DENNIS WARREN TRAYNOR

DATE

NOTARY