

立法會

調查赤鱘角新香港國際機場自1998年7月6日 開始運作時所出現的問題的原委及有關事宜 專責委員會

第19次公開研訊的逐字紀錄本

日期： 1998年11月19日(星期四)
時間： 下午2時30分
地點： 立法會會議廳

出席委員

周梁淑怡議員(主席)
何鍾泰議員(副主席)
何承天議員
李永達議員
吳靄儀議員
馬逢國議員
張永森議員
陳鑑林議員
單仲偕議員
劉慧卿議員
蔡素玉議員

決席委員

陸恭蕙議員
劉江華議員

第1節(下午2時30分至4時26分)

證人

香港機場管理局
資訊科技部主管
陳達志先生

陪同證人出席研訊的其他人士

香港機場管理局
機場系統及用戶支援經理
林福康先生

第2節(下午4時38分至7時13分)

證人

香港機場管理局
機場管理科
客運大樓系統經理
張佳蕙女士

陪同證人出席研訊的其他人士

香港機場管理局
運作規劃及技術管理經理
林智宏女士

第1節研訊

主席：

多謝各位出席今天舉行的專責委員會第19次研訊。

在未正式開始研訊前，我想提醒各位委員，整個研訊過程必須有足夠的法定人數，即連主席在內共5名委員。

我想藉此機會再次提醒公眾人士及傳媒，若在研訊進程序以外披露研訊上提供的證據，將不受《立法局(權力及特權)條例》所保障。因此傳媒應就他們的法律責任，徵詢法律意見。

專責委員會已傳召兩名證人出席今天的研訊。香港機場管理局資訊科技部主管陳達志先生將會出席第1節研訊，而香港機場管理局機場管理科客運大樓系統經理張佳蕙女士則會出席第2節研訊。

在未傳召第1位證人，香港機場管理局資訊科技部主管陳達志先生之前，我想徵詢委員的意見，陳達志先生要求帶同以下人士出席研訊：香港機場管理局機場系統及用戶支援經理林福康先生。如委員沒有異議，我建議容許林先生在研訊進行期間陪同陳達志先生，但他不可以在席上發言或提示證人如何回答委員的問題。

如委員對研訊程序沒有其他意見，我宣布研訊開始，並傳召證人香港機場管理局資訊科技部主管陳達志先生。

(陳達志先生進入會議廳，
並由林福康先生陪同)

Chairman:

Mr CHATTERJEE, thank you for attending the hearing of the Select Committee again. You are summonsed before the Select Committee today to give evidence and to produce papers, books, records and documents related to the Select Committee's scope of inquiry. Please note that you are still under oath when giving your evidence.

The Select Committee has agreed that you can be accompanied by Mr Thomas LAM during the hearing to assist you in the handling of documents when necessary but he will not be allowed to address the hearing or to prompt you in any way in your replies to Members.

Head of Information Technology, AA:

Yes, Madam Chairman.

Chairman:

The Select Committee will now deal with papers, records and documents that this witness has produced after the hearing of 18 November 1998. The Select Committee notes that the witness has already provided the following documents this morning:

Letter dated 19 November 1998 from Mr Kiron CHATTERJEE to Clerk to the Select Committee, and Attachment B, Attachments C1 to C4, Attachments D1 to D4 and Attachment E to Mr CHATTERJEE's letter.

Mr CHATTERJEE, are you now formally producing to the Select Committee all the documents mentioned above as evidence?

Head of Information Technology, AA:

I am, Madam Chairman.

Chairman:

I now declare that all the documents mentioned above are admitted as evidence produced to the Select Committee. We now continue with the hearing.

Mr CHATTERJEE, the Select Committee understands that your department is the department which is responsible for the stand-by system of FIDS?

Head of Information Technology, AA:

That is correct.

Chairman:

Can you describe to this Committee what that system is supposed to do?

Head of Information Technology, AA:

The system actually describes 3 components. Number 1 is a stand allocation system which is to be used by the Airport Control Centre, ACC, where they normally do the allocation of stands. The second component is a FIDS display component which would take over the display duties of the main FIDS system and would drive all the monitors and LCDs in the terminal building. The third component is a manual data entry function into the Airport Authority's airport operation database. When flight details and flight information were manually entered, they would be transmitted to the MTRC and Hong Kong Telephone Company, which are running a system called FDDS, Flight Data Distribution System, which in turn goes to all the ramp handlers and organisations like Hong Kong Air Cargo.

Chairman:

Can you tell us exactly when this system was ready for use?

Head of Information Technology, AA:

The stand allocation component was ready at the end of May. The FIDS display component was confirmed to be ready on 30 June. My memory is unclear on the input function of the airport operation database but I believe it was also end of May 1998.

Chairman:

We understand that there have been presentations to the Board in March and April on the system?

Head of Information Technology, AA:

Yes, madam.

Chairman:

When you presented the functionalities of the system to the Board, was the Board actually aware that this system would only be called upon to be used 3 hours after the main system is out of operation and that it would take something like 35 minutes to start operating? Can you tell us that?

Head of Information Technology, AA:

I will provide more clarification if I may. The concept of a stand-by system was presented to the Board at the February meeting of the Board, when Project Division, along with myself, provided an update on the FIDS system. At the same time, with Project Division's agreement, there was agreement that we should be evaluating the merits of a stand-by set of systems. I was then given the responsibility at that February Board meeting to explore how a stand-by sort of system could be produced. That was my presentation in March.

In March, it was very clearly articulated the pros and cons of the different options available to us: the importance of using equipment that was already installed rather than installing new equipment; taking maximum advantage of the EDS FIDS and that we were to investigate how best to switch over. In April, the update to the Board was an updated progress schedule and the progress of the development of the system so far.

Chairman:

Mr CHATTERJEE, my question is: In those 2 presentations, did you present to the Board the fact that you would not be using the stand-by system until 3 hours after the main FIDS system is out of operation and it will take 35 minutes or more for the stand-by system to start working?

Head of Information Technology, AA:

No. That information was not known at that time as the procedure had not been developed until May or the beginning of June by the Airport Management Division.

主席:

何承天議員。

Hon Edward HO Sing-tin:

Chairman, I find that answer very astonishing, in the sense that the Board was given a presentation in March and they were asked to approve a system whereby if the main system fails then there is a stand-by, a contingency plan. You are saying that you didn't know that the management would adopt the policy of a 3-hour switch-over until, say, several months later.

As a member of the Board - I am not a member but I am imagining being in the position of a member of the Board - they would probably want to know what they are buying, right? What kind of stand-by system they are going to get? If something happens, if something goes wrong on AOD or any other day, what kind of system and what is the scenario of switching over? When we listened to the evidence of the Chairman of AA, he thought it was an instantaneous switch-over. Maybe his memory was not very good?

Chairman:

We are not here to comment.

Hon Edward HO Sing-tin:

Surmising. I will take that back. But anyway he did say that he thought it was like a stand-by generator. You just switch over.

Chairman:

He did say that.

Hon Edward HO Sing-tin:

What I am saying is why wasn't the Board fully appraised of the potential performance of the stand-by system?

Head of Information Technology, AA:

In the March presentation, the concept of a physical switch-over was made known to the Board. The time was not known because we didn't have a full picture of how long it was going to take people to go round every single communication room to do the physical switch-over. As regards the decision-making procedure to switch over, that required Airport Management Division because they, with me, are responsible for making the final decision to do a switch-over. That information just was not known. It was not attended to or addressed until the development was under way.

Hon Edward HO Sing-tin:

Chairman, I want to ask what did the Board know?

Chairman:

Perhaps we should turn to Paper no. B34 in Volume III, which is the March presentation, and then Paper no. B35 which is actually the paper for the April presentation.

Hon Edward HO Sing-tin:

We have a bundle of, I think, the slides for that presentation?

Head of Information Technology, AA:

These are the slides I produced, yes.

Hon Edward HO Sing-tin:

The question is, I think, there wasn't anything here to say how this system would work in a physical switch-over or how long it would take. You said the decisions were made later on by management and I think we have to accept that. At any rate was the Board informed of the time it would take to physically switch over to a stand-by system and the implication of a switch-over?

Head of Information Technology, AA:

In hindsight, it's not very well articulated here but there is a page called the HKT stand-by proposal, where there is a \$24 million -- is this the one we are talking about?

Chairman:

Which page are you referring to, Mr CHATTERJEE?

Head of Information Technology, AA:

These are not numbered unfortunately.

Chairman:

Under which heading?

Head of Information Technology, AA:

HKT stand-by system proposal, where we talk about pros and cons at the bottom. As I pointed out, it is not very clear --

Chairman:

That is the GEC discussion, is it? Is that the one?

Head of Information Technology, AA:

No. There is another one, Madam Chairman, which is under a title called HKT pros and cons.

Chairman:

This is the March one, is it?

Head of Information Technology, AA:

I was being directed to Paper no. B34.

Hon Edward HO Sing-tin:

This is Attachment 6 of Mr CHATTERJEE's statement. It is the same thing.

Chairman:

HKT stand-by system proposal.

Head of Information Technology, AA:

That's correct.

Chairman:

\$24 million. At the bottom of the page is pros and cons.

Head of Information Technology, AA:

It is not very well articulated because these were used also as memory joggers for me. Switching equipment for 2,000 plus displays. At that point I would have discussed that it would require time. How much time.....

Hon Edward HO Sing-tin:

You said it's not articulated. Maybe the simple English is "was the Board advised of the time it would take and how long, and the implication of the time delay"?

Head of Information Technology, AA:

Yes. I advised the Board because of this particular statement. I would have talked it through and said it would take time but I wouldn't have known at that point in time how long it would take.

Chairman:

Was this point revisited when you did the April presentation?

Head of Information Technology, AA:

Let me turn to the April presentation. No, because this was an update on the progress only. The Board wanted to know what progress we had made on the development and installation of the system.

Hon Edward HO Sing-tin:

Chairman, in that case I would like to ask whether Mr CHATTERJEE is involved in the management decision to delay 3 hours before switch-over?

Head of Information Technology, AA:

That procedure was developed by the Airport Management Division.

Chairman:

You have no part to play in that?

Head of Information Technology, AA:

No. That was an operational decision.

Chairman:

Based on what?

Head of Information Technology, AA:

By AMD.

Chairman:

Based on what?

Head of Information Technology, AA:

Based on their understanding of the stand-by FIDS and the activities of the FIDS. The understanding is that the main EDS FIDS, the data that is being displayed remains on the screen frozen and with allocations being done by the Airport Control Centre 2 hours in advance, there would be valid data on those displays for 2 hours. If there were any changes in gates during those 2 hours, it would be handled by the PA system.

Hon Edward HO Sing-tin:

Chairman, obviously we don't know the cost of this. According to this presentation, it says \$24 million. Let's say it is around that figure. It is not a cheap system. Despite all the problems we had on AOD, it was not used. I would just like to ask from the IT standpoint what kind of use was the system? When do you think the system would be used?

Head of Information Technology, AA:

There is another reason that hasn't been discussed, as to why the stand-by system was approved by the Board. In February, there was still concern about EDS' ability to deliver. It was felt at that point in time that we should have a stand-by system ready for opening day. In case the EDS FIDS could not be used on opening day, we would start the day with the stand-by FIDS. The decision was to take a two-pronged approach. Number 1, continue to press EDS to deliver and improve the stability of their system but at the same time, hedge our bets and have another system that is usably ready in case FIDS was not available on opening day.

Hon Edward HO Sing-tin:

Chairman, in that case, it is a contingency plan developed for eventualities which could happen before AOD?

Head of Information Technology, AA:

That is correct.

Hon Edward HO Sing-tin:

In other words, if they could not deliver by AOD, you have the stand-by system and you can use it on AOD and so on and so forth?

Head of Information Technology, AA:

That is correct.

Hon Edward HO Sing-tin:

It is not a system that could be used if during the operation of the airport something went wrong with the main system. Is that what you were saying?

Head of Information Technology, AA:

Right now, it is considered to be a system that could be used if there is a major problem with FIDS. AMD continues to keep it up-to-date and running.

Hon SIN Chung-kai:

For what problems and in what circumstances will the stand-by be used?

Head of Information Technology, AA:

There are a number. A complete disk crash, for example, on the host server. A complete power problem or a database problem on the host server where we couldn't recover. If we couldn't fall back to host server number 2, then we would evaluate how long it is going to take to bring it back up. If it is longer than 2 hours, then the decision would be to go to the stand-by.

The whole thought was FIDS is important and we have to give time for the technical people to find the problem, to establish the problem. We have to also determine whether it can be brought back to its normal fashion. That could take anywhere between half an hour to 2 hours to determine. So there had to be a time limit and the time limit was based on the useful limit of information in the data displays in the terminal building for passengers. If there was a database problem but the host servers were still working and the database problem could be recovered, then we would continue with FIDS, like a restart, for example.

Hon SIN Chung-kai:

Did you present that in March or February to the AA Board, that FIDS, stand-by FIDS, will be used under the circumstances you mentioned just a minute ago?

Head of Information Technology, AA:

No, I did not. I produced other mitigating actions with use of displays, etc. The focus of that particular Board meeting was not so much on the technology but on the validity of a contingency plan.

Hon SIN Chung-kai:

For the validity of the contingency, it is not a problem of whether FIDS can run, it is whether EDS can produce a reliable FIDS?

Head of Information Technology, AA:

That is correct, Mr SIN.

Hon SIN Chung-kai:

If EDS proved by February that a reliable FIDS has been, for example, running smoothly for testing, then the Board, or you as HIT, won't propose a \$24 million stand-by project, would you?

Head of Information Technology, AA:

Look at the background at the same time and we talked about this yesterday. This is in the February time frame. We were all concerned about unzipping FIDS Build 2.0. We had already confirmed there was no going back. It was not possible to unzip FIDS and, therefore, we had to move forward to press EDS to work harder and help them. At the same time we still needed a contingency plan and, therefore, we presented to the Board that contingency plan.

Hon SIN Chung-kai:

Do you consider that \$24 million has been wasted?

Head of Information Technology, AA:

When looked against \$300-something million odd for the overall system, no. Plus the fact that this system is making use of the majority of the technology that is installed because the most expensive parts of the EDS FIDS are the monitors and the LCD boards. We are using as much of that technology that is already installed and I think we are taking advantage of the technology that is installed to minimise the cost.

Chairman:

Mr CHATTERJEE, I think we had better look at the record as it stands, which is the February Board meeting during which the decision was made and you were present.

Head of Information Technology, AA:

Is there a reference number, Madam Chairman?

Chairman:

The reference number is Paper no. B33. The record of this meeting seems to indicate that in fact the management did not want to make that decision to press ahead with the stand-by system. It was actually the non-executive members of the Board, including the Director of Civil Aviation and some of the officials and other Board members, who actually wanted that decision to be made there and then. In fact if you refer to Page 7, Paragraph 2.2.15, at the bottom:

"The Secretary for the Treasury pointed out that the additional system to be set up for stand-by and fallback situations. The Director of Civil Aviation endorsed this comment and urged that the matter be addressed at this meeting."

In fact the management and the executives were not too keen to have that decision made there and then. That is the number one point. Maybe you can answer that.

Also, in Paragraph 2.2.6:

"Mr CHATTERJEE said that a balance had to be struck so as not to divert the resources of FIDS contractor. In the meantime, the contractor had to be pressed hard to complete the work. He noted that management would start identifying the capability of prospective contractors for the stand-by system."

And so on and so forth. Now, would you please tell this Committee whether the following is right. In that meeting, in fact it was the non-executive members of the Board who pressed for that decision to be made there and then. The main reason was at that point in time it was recognised there was no contingency plan, because you couldn't unstitch. According to the memo that you gave to Billy LAM on 10 February, there was no contingency plan for an unstable FIDS?

Head of Information Technology, AA:

I don't know what was in the minds of the directors because I was only in the meeting during that time. Yes, that is the way I remember the meeting going. In terms of my comment where a balance had to be struck, we recognised that if we were going to go forward with a contingency plan and press EDS, we had to

make sure that EDS had every opportunity to complete their work. Therefore, we should look at options that didn't get in the way of EDS.

Chairman:

Bearing in mind you had no contingency plan and you were facing an unstable FIDS which didn't even have FAT, wouldn't you say that was a very risky position to be in without a stand-by FIDS?

Head of Information Technology, AA:

Yes.

Chairman:

Why was the management resisting making a decision there and then?

Head of Information Technology, AA:

They didn't resist making decision. The decision for me to go and evaluate and come back was made.

Chairman:

Paragraph 2.2.9:

"The Chief Executive Officer said that management had committed to Government that by the end of the third week of March, a 'go' or 'no go' decision would have to be made."

Head of Information Technology, AA:

Yes, but the next sentence:

"At this point in time, there was no option but to proceed to develop the necessary plan to implement the stand-by system...."

Chairman:

Yes, but you did not want the decision to go ahead with the stand-by system to be made there and then, and 'go' or 'no go' would be made in March, not in February. In other words, the management's view is that no decision regarding stand-by FIDS needed to be made at that point of time? Isn't that true?

Head of Information Technology, AA:

That is the way it appears from the minutes. At the same time we couldn't make a decision on what stand-by system could be provided until we had done a careful evaluation of the options.

Chairman:

But that was not what happened?

Head of Information Technology, AA:

Yes, it was.

Chairman:

No, it wasn't, because at Paragraph 2.2.17:

"In the light of the foregoing comments, members agreed to set up a stand-by facility for FIDS and authorised the Project Committee to approve the proposed agreement to be negotiated by management".

So the decision was actually taken in spite of the management's view that the 'go' or 'no go' should be taken in March?

Head of Information Technology, AA:

Fair enough. From my point of view, I was given the responsibility of getting back to the Board within the next 4 weeks with the necessary options so that they could then take a final decision.

Chairman:

But, as the expert in IT, wouldn't you say that to postpone the decision on

stand-by, without a contingency plan at that point of time, was a very risky position?

Head of Information Technology, AA:

Yes, and I was very happy with the result because it meant we could get started on the work.

Chairman:

My question was why did management resist making a decision there and then and you yourself particularly, as the IT expert, why did you not press for the setting-up of a stand-by system immediately at that point?

Head of Information Technology, AA:

My memory of that meeting was that I was pressing for that. That is the whole reason I was there. I honestly cannot remember the verbal discussion that went on during that meeting as well, but the minutes speak for themselves, Madam Chairman, that, yes, there may have been resistance, and each different Board member has his different views. But in the end the decision was the correct decision.

Chairman:

I don't think that answers the question. The question asking was what your and the management's view was regarding the stand-by FIDS?

Head of Information Technology, AA:

I believe that management was behind the decision.

主席：

劉慧卿議員。

Hon Emily LAU Wai-hing:

First of all, I want to ask Mr CHATTERJEE whether he is aware of any other airport which has a stand-by FIDS system? Is Hong Kong the first and the only one that you know of?

Head of Information Technology, AA:

I honestly don't know because we haven't checked with other airports.

Hon Emily LAU Wai-hing:

I want to go back to the 3 hours that it would take and then maybe 35, 40 minutes that it would take to activate the stand-by FIDS. If we look at the records of the meetings in the run-up to the airport opening, I don't think you ever raised this either with the AA Board or with ADSCOM, is that correct?

Head of Information Technology, AA:

In the early months, apart from pointing out to the Board that there would be time involved in switching, you are correct.

Hon Emily LAU Wai-hing:

Maybe they should have asked, but you did not feel, as the expert in this area, that it was necessary for you to explain to them the significance of this?

Head of Information Technology, AA:

It didn't enter my mind, no.

Hon Emily LAU Wai-hing:

Do you not think that is a dereliction of duty?

Head of Information Technology, AA:

Absolutely -- in hindsight it is easy to pinpoint these sorts of gaps. The important thing was that we were moving forward, with management agreement, with the support of the Board, to develop from scratch, within 3 months, something that would be used as a contingency plan. It was one of the most aggressive developments possible. There was a team that was working flat out, in order to double-check the displays, double-check the LCDs, that they could

actually communicate with these equipment, and then develop the software from scratch in order to run the FIDS. In hindsight, should I have done that? Yes.

Hon Emily LAU Wai-hing:

It is a very important point to let the Board members know. Even the Chairman of the Board assumed it was an instantaneous switch-over, just like in a power failure, you turn on the back-up. It is not as if we are asking you to tell them everything, but would you not regard this as something quite important that even if you only knew in May you should tell the Board and tell ADSCOM?

Head of Information Technology, AA:

ADSCOM were aware of it in June.

Hon Emily LAU Wai-hing:

Aware of what?

Head of Information Technology, AA:

45 minutes --

Hon Emily LAU Wai-hing:

What about the 3 hours?

Head of Information Technology, AA:

I do not think so. But they were aware of that and I believe it was in the NAPCO reports that AA's approach would be, when they had a problem with the FIDS, to wait for some time to see if they can bring back FIDS before making the decision to switch over.

Hon Emily LAU Wai-hing:

NAPCO is aware of it?

Head of Information Technology, AA:

And it was, if I remember correctly, reported to ADSCOM.

Hon Emily LAU Wai-hing:

NAPCO reported to ADSCOM?

Head of Information Technology, AA:

I have read it since, yes.

Hon Emily LAU Wai-hing:

Can you point us to that document please? We have to ask them of course if they had known this would they have bothered. I think it is a very germane thing that you, as the professional there, should have put it to the people at the top?

Head of Information Technology, AA:

It was put to ADSCOM. I do remember.

Hon Emily LAU Wai-hing:

Can you give us the date of the meeting?

Head of Information Technology, AA:

I need to go back through the records I have got.

Hon Emily LAU Wai-hing:

I was looking at the records of the ADSCOM meetings in the last few months in the run-up to the opening and I couldn't find it. Can you give it to us later maybe?

Head of Information Technology, AA:

Yes.

Hon Margaret NG:

Relevant to this, I thought Mr CHATTERJEE had said a little earlier that the AA Board would not have been aware of it because the manual for stand-by FIDS was written, I think, in July?

Head of Information Technology, AA:

No. It was written at the end of May, beginning of June, as a procedure.

Hon Margaret NG:

So they could not have realised it before the manual was written in the first place?

Head of Information Technology, AA:

That is correct.

Hon Margaret NG:

So not at the time when they gave approval to stand-by FIDS?

Head of Information Technology, AA:

That is correct, and I have already said that. I did say that I had discussed that there would be time to switch over but I had not discussed how long because at that time I didn't know.

Hon Margaret NG:

Madam Chairman, I think we should look up that attachment to see exactly when the manual was written.

Chairman:

There are copies of this all over the place. Paper no. 225-11, which is the Airport Management Division, Terminal Operations Department, stand-by FIDS operation. This is the operations procedure. The date in fact was June 1998, to be effective from 1 July. You can see there on Page 15 of 17 where it says, there is a flow chart, down for more than 3 hours, yes, confirmed by IT and Maintenance, then approval by TTM to proceed?

Head of Information Technology, AA:

Madam Chairman, this doesn't mean that the Authority would wait 3 hours. This means that if we can confirm even before that 3 hours is up - it might be an hour for us to confirm - that we couldn't bring up FIDS for another 2 hours, or another 3 hours, then the decision would be made.

Chairman:

And that decision is supposed to be a joint decision to be made by yourself and Chern HEED?

Head of Information Technology, AA:

Obviously I need to know that the technical part of the system cannot be brought back up again. It would then be with Chern HEED in terms of operations and then the final decision to make the switch-over, that is correct.

Chairman:

Can you confirm whether it is a joint decision to be made by you and Chern HEED?

Head of Information Technology, AA:

My understanding is that it was always going to be a joint decision.

主席 :

陳鑑林議員，你是不是想問那問題？

陳鑑林議員 :

主席。我想問.....

主席 :

是不是說這點？

陳鑑林議員 :

是。剛才"Mr CHATTERJEE"回答何承天議員及單仲偕議員時，我覺得他的想法似乎有多少不贊同"stand-by FIDS"的。你剛才亦說"AA"的決定是一個正確的決定。到底你心裏認為"stand-by FIDS"是有需要還是沒有需要？

Head of Information Technology, AA:

Are you asking whether I believed in February that it was necessary to move forward? The answer is yes.

陳鑑林議員：

我想瞭解一下的就是，你是否知道，有某些人對"ADSCOM"說，直至最後也不會使用"stand-by FIDS"的？你知不知道？

主席：

"Sorry, you have to....."你要告訴我們在哪份文件。

陳鑑林議員：

有一份文件是"Chairman's Brief"，我忘記了在哪裏，應該是"NAPCO"給"ADSCOM"的。

主席：

"NAPCO"給"ADSCOM"的，"OK"。

陳鑑林議員：

內裏有一句說話說，"stand-by FIDS"最後也不會用的了。

主席：

"I think we better look for that."。我們可否稍後再討論？我們首先要到回那份文件。我們要知道"exactly"那份文件如何說。

陳鑑林議員：

我繼續問。"Mr CHATTERJEE"，你是否知道當到最後決定是不是用"stand-by FIDS"的時候，是由哪些人作出決定的？剛才你說由"AMD"和.....

主席：

剛才曾說是由"Chern HEED"和"Mr CHATTERJEE"。

陳鑑林議員：

到最後，如果我們找到那份文件的時候，你可否證實由哪些人作出決定？另外，你剛才亦曾說，最後你也有份參與決定是否用"stand-by FIDS"的。事前作了決定後，你其實是不是已經.....

主席：

事前甚麼決定？

陳鑑林議員：

因為我們那份文件.....

主席：

稍後找到那份文件後才看看那份文件"exactly"說些甚麼，好不好？我們不能假設。

Hon Margaret NG:

On that same point. Is the witness aware that, in Mr HEED's view, the stand-by FIDS is not going to be used except for a catastrophic event?

Head of Information Technology, AA:

Yes. I believe I said the same thing.

Hon Margaret NG:

And you are fully aware of that - ADSCOM, NAPCO, everybody is aware of that?

Head of Information Technology, AA:

Yes.

Hon Margaret NG:

Was it discussed in a meeting or was it just your understanding so you assume everybody is aware of that?

Chairman:

Was it agreed, in other words? Was it an agreed decision?

Hon Margaret NG:

First, let me do this. At the time when you did the presentation in March to the Board, was it clear to the Board that this is something for a catastrophic scenario, at that time?

Head of Information Technology, AA:

No. As I pointed out earlier on, this was a contingency plan in case the EDS FIDS was not going to be available on opening day, and that is the understanding of the Board.

Hon Margaret NG:

Your honest assessment is that the Board did not associate that with catastrophe?

Head of Information Technology, AA:

In terms of once the FIDS was running and catastrophic failure during the day, no, that issue never came up.

Hon Margaret NG:

In fact on AOD there was a decision made not to switch on stand-by FIDS?

Head of Information Technology, AA:

That is correct.

Hon Margaret NG:

Was it at the 4 o'clock meeting?

Chairman:

No. Early in the morning before the rebooting at 10.30 am.

Hon Margaret NG:

There were 2 meetings. Did you decide twice?

Chairman:

When was the first time that you considered not switching on the stand-by FIDS on AOD?

Head of Information Technology, AA:

The first time was at around 10.30 am, when we were informed that because FIDS had gone so slow, the performance and the response time on FIDS was so slow, there was a need to reset and reboot. The advice that we got was that after -- sorry, I am using some technical terms.

Hon Margaret NG:

I understand the scenario. You don't have to repeat it to me. I have read the lot and I understand it. What I want to clarify with you is that there was an occasion, a time, when a conscious decision was made not to switch on stand-by FIDS?

Head of Information Technology, AA:

That is correct.

Hon Margaret NG:

And you say the first occasion was 10.30 am in the morning AOD?

Head of Information Technology, AA:

The first occasion, yes, 10.30 am in the morning.

Hon Margaret NG:

Who were in the meeting?

Head of Information Technology, AA:

It was a conversation in the corridor between myself and Chern HEED, and after that we informed Billy LAM as well.

Hon Margaret NG:

So you and Chern HEED had a discussion, you directly addressed the question of whether or not to switch on FIDS?

Head of Information Technology, AA:

That's correct.

Hon Margaret NG:

At that time what advice did you give to Mr HEED?

Head of Information Technology, AA:

The advice was that if with the reset of FIDS that the performance didn't improve, then we should switch to stand-by.

Hon Margaret NG:

But not at that time? What you mean is not to switch it on --

Head of Information Technology, AA:

Do the restart first.

Hon Margaret NG:

At 4 o'clock did you then review the situation?

Chairman:

Would you address us again?

Head of Information Technology, AA:

At the 4 o'clock meeting, it was with the ramp handlers and the airlines in the Airport Emergency Centre.

Chairman:

Miss NG, what are you leading to?

Hon Margaret NG:

I am leading to who actually made the decision and when was it made and on what advice. We have already heard from Mr HEED?

Chairman:

10.30 am is once.

Hon Margaret NG:

He said that there was no meeting, Madam Chairman, if you recall, there was no formal decision as to whether or not to switch on, just informal. Mr CHATTERJEE has just told us that there was a meeting, the first time in the morning, they addressed the problem, and they decided not to.

Chairman:

I think it has to be very specific. The first time he told us, 10.30 am, he discussed it with Chern HEED in the corridor and they came up with this decision. I think the next question is at any point in AOD was this question addressed again?

Head of Information Technology, AA:

No, it was not.

Hon Margaret NG:

I think later on we may have another witness who will tell us there was such a meeting at 4 o'clock. I understand you say there was a meeting for ramp handlers. I don't care what else happened at the meeting, but the evidence is that there was reconsideration of the question at 4 o'clock and then that was decided again not to switch on the stand-by FIDS, and you say that that didn't happen?

Head of Information Technology, AA:

I was in that meeting.

Hon Margaret NG:

You say that that didn't happen?

Head of Information Technology, AA:

There was no conversation of switching to stand-by that I remember. It was a discussion on what was needed in order to get the information that the ramp handlers and the franchisees needed.

Hon Margaret NG:

No need to take up your time, Mr CHATTERJEE. We are aware what else happened at that meeting. I was asking questions specifically at that point. Thank you.

主席 :

副主席。

Dr Hon Raymond HO Chung-tai:

I would like to have a point clarified by Mr CHATTERJEE, if I may. Just

now you referred to 3 things that the stand-by would do. I would just like to refer you to one of the 3 points that is to do with Paper no. A47 in Volume I. That is the AOR status report as at 30 June 1998.

Head of Information Technology, AA:

I don't have that.

Dr Hon Raymond HO Chung-tai:

That was the paper prepared by the Airport Authority dated 2 July. I can read it out to you. It is very simple. It says here:

"As a permanent measure, weekly flight schedules (should) be maintained also in the stand-by FIDS system so the data is always current and immediate cut-over to the stand-by system can be made if the main system fails."

This was one of the 3 points that was reported to ADSCOM at the meeting held on 4 July 1998 which you also attended. This was one of the recommendations of the Board made to ADSCOM?

Head of Information Technology, AA:

Yes.

Dr Hon Raymond HO Chung-tai:

Could you explain to us the meaning of "immediate cut-over"?

Head of Information Technology, AA:

My understanding there was that the Authority could immediately invoke the procedure for cut-over, rather than an immediate -- if you are pointing to instantaneous cut-over, that was never put to ADSCOM.

Dr Hon Raymond HO Chung-tai:

A transfer of the information on the system?

Head of Information Technology, AA:

Yes. Immediately we could start transferring the information, immediately we could start physically switching the equipment.

Dr Hon Raymond HO Chung-tai:

Physically? But that would have been after the 3 hours situation?

Head of Information Technology, AA:

A maximum of 3 hours. It could have been 1 hour. Sometimes it is very easy. You walk into the computer system and you see that the disk has crashed. It is an immediate answer. It is going to take 5 or 6 hours to recover the data. In that instance, it would be an hour down and then switch over. Some problems are more complicated and require more analysis.

Dr Hon Raymond HO Chung-tai:

But the data is still there?

Head of Information Technology, AA:

The data is still there.

Dr Hon Raymond HO Chung-tai:

The second point I would like to ask you is that, professionally, do you think that defining the condition for the switch-over to the stand-by system is reasonable or not? What it says here is that you get to have up to 3 hours catastrophic conditions, but that does not really cover situations such as slow response or instability. Do you think from your expertise, from your profession, that this is correct or not?

Head of Information Technology, AA:

Yes. I felt it was the right decision to take because of all known information at the time. Irrespective of what happens in the future, you still

need time to identify what the problem is. You have got to give that. FIDS is our major primary tool. Take time to identify what the problem is, decide how long it's going to take to fix the problem, and then, based on that, take the decision to switch or not to switch over.

Dr Hon Raymond HO Chung-tai:

Back to Miss Margaret NG's question. In the morning of 6 July, 10.30 am, when you had the discussion with Chern HEED and Billy LAM, you did not advise that the stand-by should have been switched on at that time?

Head of Information Technology, AA:

As I said earlier on --

Chairman:

That question has been asked and answered. Go on to your next question.

Dr Hon Raymond HO Chung-tai:

That leads to my next one. Do you think that was the wrong decision to make at that time?

Head of Information Technology, AA:

No, I do not.

Chairman:

Mr CHATTERJEE, when you decided to go ahead with the stand-by system did you just think "We need a stand-by if FIDS crashed" or did you think you needed a stand-by because FIDS was unstable, that it came up with all sorts of problems, and that you needed a stand-by to help when FIDS was unstable? That it actually has slow response time, that it is not displaying the right information, that it hasn't crashed, that it seems to be in operation but it is not operating properly - did you not consider that that was what you needed at the time?

Head of Information Technology, AA:

In the February timeframe, Madam Chairman, it was a contingency against EDS non-delivery and a contingency against the possibility that the airport would not have a FIDS system on opening day.

Chairman:

You mean it wasn't a contingency plan to cover the possibility that the system was just unstable?

Head of Information Technology, AA:

It turned into it. It evolved into that.

Chairman:

What do you mean it evolved into that? What system were you supposed to build as a stand-by system? What kind of scenario were you catering for when you built the system? You were personally involved in designing and looking --

Head of Information Technology, AA:

My department was personally involved in designing. I was making sure that the right people were brought on to ensure the designs. The initial reason up-front was a contingency against opening day.

Chairman:

To do what?

Head of Information Technology, AA:

To be a FIDS system in case we didn't have one on opening day.

Chairman:

What do you mean in case you don't have one? You mean if FIDS crashed or if FIDS is not performing properly?

Head of Information Technology, AA:

If FIDS is not even available because EDS have not been able to deliver.

Chairman:

In fact the stand-by was not for slow performance or substandard performance, it was for the catastrophic crash, are you telling us that?

Head of Information Technology, AA:

There's a bit of a misunderstanding. Development of the system is a contingency against on Day one we do not have EDS, the FIDS system, that the FIDS system was not stable enough to trust on opening day.

Chairman:

You are telling us 2 different things now?

Head of Information Technology, AA:

I have been saying the same thing all the way through.

Hon Emily LAU Wai-hing:

He is saying the same thing. Let him finish first.

Head of Information Technology, AA:

I have been saying the same thing all the way through. That is the way it started off in February, as a contingency. As EDS' performance effort and as the success of the tests took place and the stability improved, there was a growing belief that FIDS, the EDS FIDS, would serve on opening day. At that point in time the value of the stand-by system has changed to one of catastrophic failure.

Chairman:

When did it change? At which point did it change?

Head of Information Technology, AA:

I think roundabout May, June -- well, we had a fairly stable or a better system around 27 May so that is probably when it changed.

Chairman:

You mean when you presented it to the Board in April it was one thing, but the one you build was another?

Head of Information Technology, AA:

I believe it was always understood that it would be there also as a stand-by in case there were major problems with the main FIDS.

Chairman:

Miss Margaret NG, you want to further pursue?

Hon Margaret NG:

Madam Chairman, I don't want to pursue the question. It is a matter of judgment. I heard 2 things. I think the point is very clear. We can make a comment later on.

主席 :

張永森議員。

Hon Ambrose CHEUNG Wing-sum:

Mr CHATTERJEE, can you give us your comment in terms of February you are talking about developing a stand-by system for the purpose of just in case of EDS non-delivery?

Head of Information Technology, AA:

That is correct.

Hon Ambrose CHEUNG Wing-sum:

No FIDS system at all?

Head of Information Technology, AA:

That is correct.

Hon Ambrose CHEUNG Wing-sum:

And this stand-by system can run on its own?

Head of Information Technology, AA:

That is correct.

Hon Ambrose CHEUNG Wing-sum:

And carry on the purpose of AOD?

Head of Information Technology, AA:

That is correct.

Hon Ambrose CHEUNG Wing-sum:

Is there any difference at all, if indeed FIDS is a stable system well in time before AOD, you would still need to develop a contingency system just in case a stable FIDS may not perform? It is there, it is stable, but just in case there is still a situation that the FIDS system fails to perform, you will still need a stand-by system, a contingency system, right?

Head of Information Technology, AA:

That is a very good question and, I admit, one I haven't thought of because we weren't presented with those circumstances. If you look at the main FIDS system, it actually has a back-up of its own because it consists of 2 main computer systems, one in hot stand-by whilst the primary system is working. If there is a problem with the primary system, then the back-up will take over. It is a highly redundant system. Without having had time to think about it carefully, my answer - and if everything was stable - my answer would be no, I don't think we would have needed a stand-by.

Hon Ambrose CHEUNG Wing-sum:

In other words, the FIDS system itself has a back-up?

Head of Information Technology, AA:

That is correct. Dual computers.

Hon Ambrose CHEUNG Wing-sum:

If you are really developing a back-up system you don't need the stand-by because it is already in the FIDS system?

Head of Information Technology, AA:

The FIDS has 2 computer systems. One backs up the other, that is correct.

Hon Ambrose CHEUNG Wing-sum:

You did mention that as it develops sometime in May and June, when FIDS became more stable and you are increasing your comfort on the performance of FIDS, you are developing this highly redundant stand-by system into -- I don't know what? Perhaps you can describe to us? The purpose of this stand-by system is only in case of catastrophic situations? Exactly what do you mean by that?

Chairman:

I think Mr CHATTERJEE will have to tell us. He told us earlier somewhere along the way something changed?

Head of Information Technology, AA:

I think I am about to answer the question.

Chairman:

You have to tell us where and when and where the documentary evidence is that something has changed vis-a-vis the stand-by system and whether you have actually kept everybody informed of that?

Head of Information Technology, AA:

In terms of the way it has changed and in terms of changing, everyone was aware of FIDS' growing stability, the commitment to stand-by had already been made, and it was beginning to be finished and delivered and tested. If you are looking for me to say was there a specific statement made by the team to alert the Board and ADSCOM that this whole purpose had changed, no, there was not. But I believe everyone was aware because everyone was fully informed on FIDS and fully informed on stand-by development.

Chairman:

You told this Committee 10 minutes ago that when you designed the stand-by system in February, when you made the presentation to the Board, it was to cater for an unstable FIDS. Then as the stability of FIDS improved during the following months, that purpose changed to one which would cater for a catastrophic crash of FIDS?

Head of Information Technology, AA:

That is correct.

Chairman:

That is what you told this Committee about 15 minutes ago?

Head of Information Technology, AA:

Yes, right.

Chairman:

That means somewhere along the way the purpose for which this stand-by system was built changed?

Head of Information Technology, AA:

Yes.

Chairman:

You have to tell us, point us to the direction of what those changes are to build this system to fit a different purpose, how those changes were made, where those changes were made, and who was aware of those changes?

Head of Information Technology, AA:

There were no changes to the design of the system.

Chairman:

Go on?

Head of Information Technology, AA:

There were no changes to the design of the system, technically or functionally. The system as it was originally conceived in February is the system that was delivered in June.

Chairman:

Then the use of the system changed because as the stability improved you just decided that because the main FIDS stability has improved you are only going to use it for catastrophic crash?

Head of Information Technology, AA:

That was a decision made with MD, yes.

Chairman:

That is the 3 hours and all the rest of it?

Head of Information Technology, AA:

That is correct and the procedure being produced.

Hon Ambrose CHEUNG Wing-sum:

Can I ask a question, Madam Chairman. That means with that situation you are proceeding on to AOD with 2 back-ups, basically?

Head of Information Technology, AA:

Theoretically, yes.

Hon Ambrose CHEUNG Wing-sum:

When you say "catastrophic" that means that the FIDS -- not only the original computer has gone wrong, the back-up has gone wrong, and then you would then go on to stand-by?

Head of Information Technology, AA:

Yes.

主席：

蔡素玉議員。

Hon CHOY So-yuk:

Madam Chairman, Mr CHATTERJEE just mentioned earlier that in February when you considered getting this stand-by FIDS you were afraid that EDS's original FIDS system might not be available or it might not be working at all. At that point in time did you ever consider postponing the opening day? Obviously you were afraid that the original FIDS might not be available on AOD so there would be two possibilities: One is to get a stand-by just in case the EDS one would not be delivered in time; or you would propose or there would be a discussion on postponing the AOD so that the EDS system would be surely delivered and working properly at AOD. Was this ever discussed in your decision meeting in February?

Head of Information Technology, AA:

No. There was no discussion while I was at that Board meeting. I am not aware of any other discussions, if they had taken place, because I was not present.

Hon Edward HO Sing-tin:

The question must be asked and I think Mr CHATTERJEE is well equipped to answer that. The stand-by FIDS system, in case of the breakdown of the main FIDS, would give the same performance as the main FIDS? To a lesser degree, I guess? Say, for instance, there is a failure in performance. I think we were talking about incorrect data, slow response, that kind of thing. If you switch to the stand-by FIDS would the stand-by FIDS give you the correct data and quicker response times?

Head of Information Technology, AA:

No. There would be some differences functionally and there would be some differences also in the way the airport operated. Let me give you some examples. We had a very, very short delivery deadline and there were some things that would be missing. For example, we would need additional data entry people. So that is additional people. On the displays themselves, the data that is being displayed, on the monitors we would lose Chinese characters because there was no time to develop that. On the LCDs there would still be Chinese characters. On the airline side, we would lose the facility to give airlines multiple logos. At the moment when you go into the terminal building you see some nice colourful logos that the airlines are using for check-in but with the stand-by FIDS they would be given just one logo irrespective.

Chairman:

We really don't want to go into detail.

Hon Edward HO Sing-tin:

My question was correct data, better response time? There were a lot of problems on the AOD with incorrect data and very slow response time. Even if you were to switch to the stand-by FIDS would you be able to obtain these correct data and an acceptable response time?

Head of Information Technology, AA:

Correct data - as long as the data entered was correct, yes. Performance - we haven't made that comparison but performance would be acceptable. In terms of whether it is --

Hon Edward HO Sing-tin:

Slow response time? Surely that could be a very major problem, right?

Chairman:

Response times?

Hon Edward HO Sing-tin:

Slow response times could be a major problem and did become quite a big problem on AOD. Why wasn't that evaluated as far as the stand-by FIDS was concerned?

Head of Information Technology, AA:

Response time was evaluated in terms of the test that was done on 30 June and it was considered to be acceptable.

Chairman:

On the stand-by FIDS?

Head of Information Technology, AA:

On the stand-by, yes.

Chairman:

I think that Mr Edward HO is asking, on AOD slow response time was a problem so why didn't you consider that --

Hon Edward HO Sing-tin:

In all fairness, I asked as far as the performance of the stand-by FIDS and the specifications of the stand-by FIDS whether it can deliver. I think Mr CHATTERJEE said if it was used it could deliver? Right?

Head of Information Technology, AA:

Yes. As long as the data is correct and there is nothing wrong with the displays.

Hon Edward HO Sing-tin:

Just to finish off, I was going to ask that also, that since the stand-by FIDS could deliver correct data, better response time and all that, why didn't you switch to it? Why was the manual prepared in such a way that you had to wait several hours?

Head of Information Technology, AA:

I'm not sure that's -- I think it was still considered that it would be better to continue with the main FIDS rather than taking --

Hon Edward HO Sing-tin:

The main FIDS with the data on the monitor is frozen for 3 hours while there were flights coming in and out every 2 minutes and so on. There would be a lot of incorrect data and you would have to rely on other methods to let passengers --

Head of Information Technology, AA:

Under normal circumstances the data on the FIDS would be showing gates allocated 2 hours in advance. So as the flights were coming in they would be taken to the gates that were already allocated.

Hon Edward HO Sing-tin:

And arrivals?

Head of Information Technology, AA:

A departure becomes an arrival so they are all at the same gate. Arrivals, yes, 2 hours in advance.

Chairman:

Mr CHATTERJEE, I think there is still one point you have to make very clear, at least to me. I find it very puzzling. You said that in February you built a system which would do 2 things, basically: One to cater for non-delivery of EDS FIDS; and the other thing is, given the instability of FIDS during all these tests and so on, you also wanted to cater for that scenario. As you progressed into the following month, tests seemed to indicate that the main FIDS was more stable, getting more stable, improvements and so on?

Head of Information Technology, AA:

Yes.

Chairman:

Therefore, you decided that you only use the stand-by FIDS when there is a catastrophic crash. If the stand-by FIDS was built in the first place to cater for both instability and non-delivery of EDS, why was it not able to handle instability, which was exactly what happened on AOD?

Head of Information Technology, AA:

The information coming to us and being provided was that the system was responding slow, a restart of 20 --

Chairman:

I am asking you why is it that the stand-by system after it is built came to, in your view, to be performing less of a stand-by role than initially envisaged at the point of design in February? In February you looked at the system to cater for the extreme case of non-delivery of EDS. Not so extreme case, instability of FIDS. That was what you designed the system for. How was it that towards AOD -- OK in spite of the fact that the EDS system became a little more stable than before, why was it that the stand-by system couldn't cater for instability of the main FIDS?

Head of Information Technology, AA:

I'm not sure I understand the context that you are getting at.

Chairman:

The extreme case is no main FIDS, non-delivery?

Head of Information Technology, AA:

That is correct. That was the decision in February.

Chairman:

A matter of degree. Instability of FIDS was also considered in February, so you needed a contingency?

Head of Information Technology, AA:

No. I understand the February decision was in case there is no FIDS on opening day, full stop.

Chairman:

I'm sorry. That is not what the record shows, Mr CHATTERJEE. I refer you once again to the Board meeting of February. That is not what the record shows. The record shows that the discussion on contingency plan emanated from the fact that FIDS was unstable and there was no contingency plan in place.

Head of Information Technology, AA:

At that point in time, yes.

Chairman:

In February?

Head of Information Technology, AA:

Yes. Unstable means also that if we project through to July and it is still not usable on opening day we need a contingency plan.

Hon Margaret NG:

Madam Chairman, I think even the evidence of this witness earlier this afternoon was different. We were all along asking questions on instability of FIDS and the stand-by system as something to cater to that. In the middle of his

evidence the witness told us "Don't forget, there was another reason why there was stand-by FIDS. Because in February the Board was not at all sure that the integrated FIDS could be delivered". The main purpose is to deal with instability of FIDS; the secondary purpose non-delivery of FIDS altogether.

Head of Information Technology, AA:

The 2 were considered to be the same, Madam Chairman, in February.

Chairman:

Which 2? You mean the instability and the non-delivery are one and the same?

Head of Information Technology, AA:

That is correct.

Chairman:

So there is no difference in degree?

Head of Information Technology, AA:

If at the end of June it was considered that the system was too unstable to be used on opening day, that is unavailability. If at the end of June it was considered that the EDS just had completely failed to complete their tests and there were too many delays that came to the same thing.

Chairman:

Are you telling this Committee then, Mr CHATTERJEE, that in fact you did not build a system in February to cater for reduced functionality of FIDS? You never thought of it? You just built a system to cater for total non-performance, non-operation of FIDS? Not reduced functionality?

Head of Information Technology, AA:

I don't understand what the connection is between reduced functionality -- what do you mean by "reduced functionality"?

Chairman:

Slow response time, wrong data here and there, partial wrong data, which is exactly what happened on AOD, wasn't it?

Head of Information Technology, AA:

Yes, but the causes of that --

Chairman:

Never mind the causes. I am talking about when you built the stand-by system did you build it for total crash or did you build it for when there is reduced functionality, reduced performance of FIDS?

Head of Information Technology, AA:

The stand-by system was built as a contingency plan against the main FIDS not being used on opening day and during the development, as the main FIDS development improved, it would also be used for catastrophic crashes of the FIDS.

主席 :

李永達議員先說，然後到副主席。

李永達議員 :

主席，可否請證人參閱第X冊其中一份文件的"Paragraphs"50-56。

Head of Information Technology, AA:

Which paragraphs?

李永達議員 :

Paragraphs 50-56有"log of FIDS, 6 July 98"，找到嗎？文件有幾章，其中一章"FIDS log, 6 July 98"。

機管局資訊科技部主管：

"I'm sorry, I wonder if I've got the right....."

李永達議員：

你再往後翻，有一個"log"。

Head of Information Technology, AA:

I am looking at stand-by FIDS operation procedure. Does it have a reference no. 39-46-5?

李永達議員：

"39-46-5, yes"。當日"FIDS"在上午10時30分出現問題，右邊"column"是"system rebooted and back to normal at 11"，看到嗎？

Head of Information Technology, AA:

I have got it.

李永達議員：

"OK"，左邊欄1100所述為"A OCC FIDS Workstation performed even slower, Took 20-25 minutes to allocate a Reclaim Belt."，為何右邊的紀錄是"back to normal"，而後面11時的紀錄卻是"performed even slower"？請向委員會解釋。在"reboot"，"back to normal"後，是否表示可操作，但反應較慢？

主席：

"Mr CHATTERJEE"。

李永達議員：

我的理解是否正確？

Head of Information Technology, AA:

My memory is that it took place at 10.39 am and that during that time the FIDS was resetting itself and it completed resetting itself at about 11.15 am. There are documents that do show that. I would assume that at 11 o'clock the system was still setting itself up, which is why it took that much time. After the reset, I did not get any other feedback saying that performance was a major issue.

李永達議員：

但這處記錄"performed even slower"，為甚麼？

Head of Information Technology, AA:

This is the FIDS log from the AMD and if they had tried to do it at 11 o'clock it would have been slow, yes.

李永達議員：

"Mr Kiron CHATTERJEE"，我有以下的意見，不知道你是否同意？當你做後備系統的時候，最後大約在6月底的時間，才作"stand-by FIDS test"是嗎？其實你對這系統本身有沒有信心？

Head of Information Technology, AA:

Yes. On 30 June we had 35 airlines worked with us. We had a complete team in the AOCC. We had these resources run to each of the communications rooms and physically switched over. It worked.

李永達議員：

可以了，你有信心便可以，我不重複這問題。但我們很多同事詢問為何在"AOD"當日，即使"FIDS"系統一直有問題，也不敢用"stand-by"。可否這樣說，由於機管局一直迫管理層造"stand-by FIDS"，你們當然要去造。在時間緊迫的情況下，你們測試的次數不多，就算你自己與"AMD"同事，亦未必有信心"stand-by system"的表現比"main FIDS"更加好，所以其實你認為用2,000萬元來設計後備系統，只是令機場管理局的同事有心靈上的安慰，而你自己亦不預備使用後備系統。你是否同意我的見解？

Head of Information Technology, AA:

No, I disagree with that. All the way up to opening day and even today there is an intention to use it if it is needed. In terms of testing, there were a large number of tests where we had people from AMD, NAPCO, Works Branch, come and actually view the tests so that they could see the displays working. I have this piece of paper here which I can pass to you and there were about 10 occasions where we did test, including overnight testing, ending up on June 30 with a satisfactory result.

李永達議員：

陳達志先生，若有信心，為何在機場啟用當日出現很多問題的時候，也不敢用後備系統？

你說得很好，你認為測試很理想。在"main FIDS"系統情況這樣惡劣時，你仍不決定"switch on"這個系統，為甚麼？是否表示你其實亦沒有信心，倘"switch on stand-by"系統，你亦不敢估計有何後果，所以不敢"switch on"？

Head of Information Technology, AA:

I don't believe that. I believe that on Monday, AOD, that AMD did follow their procedure. There was discussion between the parties. We did double-check with the IT EDS people. The message was that FIDS could come back in half an hour, and be reset and back in half an hour. My advice at the time was that if it doesn't improve then we move to stand-by. That was accepted. After the restart, apart from some logs where the timings can be explained, we did not get any other feedback saying there was a performance problem.

李永達議員：

陳達志先生，你認為市民會否相信你？若你對後備系統抱這樣大的信心，而機場啟用日發生這樣多問題，例如"FIDS"便是一個問題，你為甚麼不"switch on"後備系統？你覺得可否說服委員會，認為你真的對後備系統有信心？就算你自己不斷說有信心，你覺得可否令委員會信服？你表示對這"stand-by"系統很有信心，"test"過10次，而且它有穩定良好的表現，可是當機場發生不少問題時，連你自己也不敢作決定。

Head of Information Technology, AA:

Let's not make the mistake of focusing only on the system as being the cause. At that point in time we didn't know what the causes were in terms of where there were other problems coming.

Chairman:

Now you know.

Head of Information Technology, AA:

In hindsight, yes, but at that point in time there was no feedback coming that there was a problem with the system or there was a problem with displays. It is possible that moving to stand-by would have created more chaos. It is possible.

Chairman:

Why? If you had already tested it, if you felt that it is something you can rely on, why did you feel there would be more confusion?

Head of Information Technology, AA:

There is a function which I was not allowed to explain. There is a functional difference between the 2 systems in that a lot of the FIDS data entry is automated and decentralised. People at the gates and at the check-in desks, they will do whatever work they need in order to get the FIDS screens and the monitors up on their screens. It is what I call a decentralised system. Stand-by FIDS changes that. Stand-by FIDS requires all of those people that need something done, like a logo or a message, to phone into the centre at the AOCC. They need to then give instructions to the AOCC data entry people and those data entry people will then key in the command.

Chairman:

You are telling us that the operation of the main FIDS and the operation of the stand-by FIDS are different?

Head of Information Technology, AA:

Different.

Chairman:

Was that rehearsed?

Head of Information Technology, AA:

Yes.

Chairman:

Switching over from the one to the other?

Head of Information Technology, AA:

30 June, yes, it was rehearsed.

Chairman:

Rehearsed from switch-over from the main FIDS to the stand-by FIDS?

Head of Information Technology, AA:

That is correct.

Chairman:

So you have had a rehearsal?

Head of Information Technology, AA:

That's correct.

Chairman:

So if you have had a rehearsal why were you not confident to do it on the actual day?

Head of Information Technology, AA:

Because at the same time we still didn't know where the problems were coming from.

Chairman:

Problems is one thing. Performance is another. The FIDS log told us the performance was slipping?

Head of Information Technology, AA:

Yes.

Chairman:

Response time was slow. All sorts of problems were surfacing all over the PTB. There was no doubt they were factual, the problems?

Head of Information Technology, AA:

Yes.

Chairman:

It was causing confusion. It was snow-balling towards the afternoon?

Head of Information Technology, AA:

Yes.

Chairman:

You mean you are so concentrating your attention on determining what the causes of the problems are without actually focusing on the problems that the public faced at the time?

Head of Information Technology, AA:

I'm not an operational person. You will have to direct this to the operational people. There were other factors also contributed to delays of

information to the displays.

Chairman:

It wasn't the FIDS then?

Head of Information Technology, AA:

Possible. At 10.30 am that morning it was possible.

Chairman:

It wasn't performing up to standard, that was a fact?

Head of Information Technology, AA:

It was slow. That was a fact. That is a fact. And the decision was if it doesn't improve, if the performance does not improve, then move to stand-by.

Chairman:

But it didn't improve. Even after you made the decision to reboot, it actually deteriorated, didn't it?

Head of Information Technology, AA:

We have no evidence of that, except for this one entry here and that entry was made at the time the system was being rebooted.

Chairman:

You are doubting the entry now? You are saying the entry may not reflect the fact?

Head of Information Technology, AA:

I am saying the entry was taken at a time when the system was being rebooted.

Chairman:

After the system has been rebooted?

Head of Information Technology, AA:

It takes half an hour. The system is a very big system - over 2,000 displays, 29 communications rooms, and every single one of them has to be reset. It is not just resetting one room, Madam Chairman. It is resetting every single room throughout the whole of the building.

Chairman:

You are now telling this Committee that the log was inaccurate?

Head of Information Technology, AA:

The log from a user point of view was accurate. This is an accurate log, seen from their perspective. There are other logs as well that I remember where we were talking about a 10.39 am reset and 11.15 am complete.

Chairman:

Do you mean the log that reflected 11 o'clock did not reflect the result of the rebooting?

Head of Information Technology, AA:

That is correct.

Chairman:

What about from that point onwards? By 4 o'clock the situation did not improve?

Head of Information Technology, AA:

We were getting information back on the FIDS that, whilst it was slow, it was manageable. Manageable.

Chairman:

The log says it did not improve at 4 o'clock?

李永達議員：

"Manageable"意思即機場混亂至如斯地步仍是"manageable"。我說完我想說的話後便作罷，不會再提問。這個用2,000萬元設計的系統，雖然測試過很多次，也曾作"rehearsal"，但當日卻發生不少問題，到下午4時仍有問題，可是你亦不敢與"AMD"同事共同決定"switch on"。請你解釋一下，其實你是否對這個"stand-by"的"FIDS"缺乏信心？你向委員會表示這個系統的運作很理想，但到今日為止，這個系統從未投入運作。是否因為你不知道使用後的結果，而且後果其實可能比"main FIDS"還差？

Head of Information Technology, AA:

No, there was confidence as seen from the tests. In the end, it was a judgment call. That judgment was made at the time it was taken with Chern HEED. The rest of the day the message coming back to me was that the performance, whilst slow, was manageable.

Hon Emily LAU Wai-hing:

I just want to ask Mr CHATTERJEE, in your discussion with Mr HEED on that day, did you discuss the fact that had the system crashed, you would have switched on the stand-by?

Head of Information Technology, AA:

Absolutely.

Hon Emily LAU Wai-hing:

If it had not crashed, if it is unstable, if it is slow, incorrect data, you would still persevere. But if the whole thing just crashed then you would use it? Is that what you decided?

Head of Information Technology, AA:

The factors are very many, Ms LAU. If the main FIDS had crashed, of course we would have used it. If we had got information at 10.30 am saying that we cannot solve this slow response time within a certain period of time, then that is another possibility for switching over to stand-by FIDS. If there had been more severe errors and the problem couldn't be fixed in the timeframe that was agreed by MD, then stand-by is obviously another possibility. But the information we were getting from the technical people is a restart of the system will improve performance. That is what we got. So we said "OK. If it doesn't improve performance we will turn on stand-by FIDS".

Hon Emily LAU Wai-hing:

And your standard for judging "does not improve performance" is what?

Head of Information Technology, AA:

We would be getting consistent complaints from throughout the Authority, throughout the airport, that there were problems still with performance and we were not getting that.

Hon Emily LAU Wai-hing:

You didn't get any consistent complaints on that day?

Head of Information Technology, AA:

No.

Dr Hon Raymond HO Chung-tai:

I would like to get back to the question put to you by Madam Chairman. I think you had extreme difficulties in answering that question. Can I put it to you in a very simple form. The stand-by system is still the same system, whether it was in February or in May or in June?

Head of Information Technology, AA:

No change to design, that is correct.

Dr Hon Raymond HO Chung-tai:

Really it is the conditions that are set for the activation of the system that were changed, is that correct? In February you were catering for non-availability of EDS FIDS or instability of EDS FIDS, and that continued until just before AOD?

Head of Information Technology, AA:

Correct.

Dr Hon Raymond HO Chung-tai:

Later on, because of evidence of improvement of the EDS FIDS, you changed the requirement for activating stand-by systems to the extreme situational eventuality or catastrophic conditions?

Head of Information Technology, AA:

Correct.

Dr Hon Raymond HO Chung-tai:

That is the understanding?

Head of Information Technology, AA:

Correct.

Dr Hon Raymond HO Chung-tai:

I would like to give you another question on this hot stand-by. The FIDS system has got 2 computers. When the main primary one fails then you have the hot stand-by to be switched on. Is that automatic or not?

Head of Information Technology, AA:

Yes. It is both. It is both automatic and it can be forced.

Dr Hon Raymond HO Chung-tai:

What happened on the AOD? Was it the case that even the hot stand-by didn't work or was not switched on automatically?

Head of Information Technology, AA:

I don't know the answer to that. I need to find that out.

Dr Hon Raymond HO Chung-tai:

Did you try to find that out after the AOD? Would that be a very interesting thing that you would like to find out as an IT expert? It is an over \$300 million project you see for this particular system, which has got 2 parts, primary and hot stand-by, and the hot stand-by was not switched on and was not forced upon to be activated. You have not found out why that happened?

Head of Information Technology, AA:

There was discussion of failure but at the time we didn't focus on it.

Dr Hon Raymond HO Chung-tai:

Not even as a post-mortem you tried to find out why the hot stand-by was not activated automatically or manually?

Head of Information Technology, AA:

As a post-mortem I am sure we did. I just cannot remember it at this time. I have to double-check.

Dr Hon Raymond HO Chung-tai:

When was the post-mortem done?

Head of Information Technology, AA:

The post-mortem would have been done about 2 weeks afterwards, 2 to 3 weeks afterwards.

Dr Hon Raymond HO Chung-tai:

That was in August, end of July?

Head of Information Technology, AA:

There would have to be some time. The focus during those first 3 weeks was on EDS and stabilising the system in terms of its refreshing, identifying where the problems were, and then getting those problems or other things fixed.

Dr Hon Raymond HO Chung-tai:

I think this is extremely important because so much money is spent on this EDS FIDS and it didn't work properly. Afterwards at least you should ensure why that hot stand-by system didn't work at all. Because certain things can happen again in the future, surely in the post-mortem that you did towards the end of July or early August that would be something very, very essential to be found out?

Head of Information Technology, AA:

I would be quite happy to go back and double-check.

Dr Hon Raymond HO Chung-tai:

You are saying that you cannot remember?

Head of Information Technology, AA:

I cannot remember.

Hon Margaret NG:

Madam Chairman, Mr CHATTERJEE said that if it had gotten worse after rebooting then he would have considered switching on stand-by FIDS, was that right? Or did I get it wrong?

Head of Information Technology, AA:

If the information coming back to us was that it had got worse in terms of its system performance, then both an operational decision and a technical decision would have to be taken, yes.

Hon Margaret NG:

Wasn't it right that at 10.30 am you decided to refresh and reboot?

Head of Information Technology, AA:

We decided to restart the system, correct.

Hon Margaret NG:

It took half an hour, and you have a log at 11 o'clock and it says that it worked even slower, you remember that?

Head of Information Technology, AA:

I remember the time in terms of the actual time the buttons were pressed was 10.39 am and I will have to provide you with evidence that shows that from the logs --

Hon Margaret NG:

I am referring to the log itself. You have seen that log, haven't you?

Head of Information Technology, AA:

This log is an AMD log.

Hon Margaret NG:

You don't agree with the AMD log?

Head of Information Technology, AA:

I agree that the AMD log is accurate in that they were experiencing a slow performance. What I am suggesting here is that we need to find out whether that slow performance was after the completion of the restart or during the restart. If it was during the restart, then of course it would be slow because the system

wasn't ready yet.

Hon Margaret NG:

Madam Chairman, in terms of time it certainly sounds like after.

Chairman:

In fact in the log it says system rebooted and back to normal at 11 am.

Hon Margaret NG:

If you look at 11 o'clock, "AOCC FIDS work station performed even slower. Took 20 to 25 minutes to allocate a reclaim belt".

Chairman:

Do you see that, Mr CHATTERJEE?

Head of Information Technology, AA:

Yes, I do.

Chairman:

Are you still claiming that it wasn't back to normal and when the log says it was back to normal at 11 o'clock it was not accurate?

Head of Information Technology, AA:

I would like the opportunity, Madam Chairman, to actually double-check our own internal technical logs as well because the system itself has logs which we kept.

Hon Margaret NG:

While you are doing that, Madam Chairman, perhaps also at the log at 20 hours, FIDS system?

Chairman:

20:00 hours?

Hon Margaret NG:

Yes. "FIDS workstation continued to perform slow. Took 20 to 25 minutes to allocate a reclaim belt". This is switching on stand-by FIDS.

Head of Information Technology, AA:

Where?

Chairman:

This is 20:00 hours at the next page.

Hon Margaret NG:

Madam Chairman, I don't intend to spend a lot of time on this, unless you wish to, but I thought it right to bring it to the notice of the witness. When the Committee feels able to go to another topic, then maybe it is important, in view of time, to ask Mr CHATTERJEE to point to the documents in the new documents provided to us today as to show us that Pre-SAT could take the place of FAT to any extent. Madam Chairman, I just leave those questions with you.

Chairman:

Will you be supplying us with your internal log to let us know whether the system was slow? From 11 am onwards, after rebooting, and throughout the day in actual fact, because you said that it was actually performing normally?

Head of Information Technology, AA:

Very important. We have an event log that shows the events on the system and I would be happy to provide that to you.

Chairman:

Right. For AOD.

Hon Edward HO Sing-tin:

Just a short clarification. This is again on the switching-over, the 3 hour thing. According to the operation procedure, it says FIDS down-time, right, when the main FIDS is down the supervisor shall do this, this and that, check this and so on, and if the down-time is less than 3 hours then there are certain procedures. I just want to clarify what is the meaning of FIDS "down-time"? Does that just cover the computers stopping altogether, right?

Head of Information Technology, AA:

The central server has not been able to process work. The central computer has not been able to process work.

Hon Edward HO Sing-tin:

From the users' point of view, from the people looking at the monitors?

Head of Information Technology, AA:

They can't do their work.

Hon Edward HO Sing-tin:

Everything stopped?

Head of Information Technology, AA:

That is correct.

Hon Edward HO Sing-tin:

Slow response, incorrect data, that is not FIDS down, is it, in IT's terminology?

Head of Information Technology, AA:

If is a continuous one, of course it is down because the information is not getting through quickly enough.

Hon Edward HO Sing-tin:

Looking at the logs just now, starting from 6 o'clock in the morning on AOD up until 11 o'clock, or 10.30 am, there were all sorts of problems. AIDB AODB interface was down, 6 o'clock. If you just read on there are all kinds of problems. Unable to log in at gate, and so on and so forth. Until 11 o'clock when the system was rebooted. It is actually more than 3 hours when all sorts of problems occurred. That is why I am asking this question?

Head of Information Technology, AA:

We are seeing these problems in isolation. Remember there is a whole terminal building with something like 2,000 displays, 288 check-in desks, another 200 --

Hon Edward HO Sing-tin:

All this is connected to the main FIDS, though, right?

Head of Information Technology, AA:

Yes.

Hon Edward HO Sing-tin:

And if there is incorrect data here, and slow response time there, and incorrect data somewhere else, and so forth, all piled up and all happening very rapidly, would one say that the FIDS is not working, it's down, and something has to be done?

Head of Information Technology, AA:

That either FIDS is not working, somebody is not putting the data in properly enough, or we are not getting in the information quickly enough for us to put the data in. There are a variety of reasons.

Hon Edward HO Sing-tin:

But we are talking about 5 hours, from 6 am to 11 pm?

Head of Information Technology, AA:

It was still difficult to identify exactly the cause.

Hon Edward HO Sing-tin:

Operational procedure did not work, in other words?

Head of Information Technology, AA:

This operational procedure is from the point of view of FIDS down 3 hours. We have still got to take into account what else is happening elsewhere in the airport in terms of operations.

Hon Edward HO Sing-tin:

I am trying to get at what is the meaning of FIDS "down". A total black-out I can understand. Everybody understands that. But if there are a series of errors happening and a lot of functions are not performing --

Chairman:

Actually I think, Mr CHATTERJEE, what members are trying to grasp is under what circumstance would you actually use the stand-by when you say the system is "down", since you say AOD is not quite the scenario where it justifies the switching over of stand-by? Then you say when it's "down". To us it certainly seems that there is a matter of degree?

Head of Information Technology, AA:

There is a matter, yes.

Chairman:

You talk about the catastrophic crash. That is a total, sort of, non-operation of the entire FIDS over the entire building. Give us the degree.

We don't know at which point you would switch it on?

Head of Information Technology, AA:

I can't give you a proper answer in terms of the degree because, depending on the degree, there are other factors that may be contributing to the problem. It is important to identify what those factors are. If the factors are outside the computer system, then switching over wouldn't make a difference.

Chairman:

But it's not outside, is it?

Head of Information Technology, AA:

Slow performance is not outside. But, as I stated before, we made the judgment call, both of us, on restart that if performance did not improve we would move to stand-by. That was a conscious decision. At that point in time, throughout the remaining part of the day, over 4 hours, I did not get consistent feedback that things were slow everywhere.

主席 :

You let us have your log, your own log.

我想告訴大家有關陳鑑林議員剛才問的問題。在"Volume II"文件C87的"Chairman's Brief"第9段有一項資料，就是"NAPCO"給機策會主席的參考資料說明。

"AA will use workaround measures and try to re-run FIDS instead of switch-over to the stand-by when the system fails in some manner unless the system has been down for quite some time. This is understandable given that the switch-over, both to the stand-by and back to the permanent system, takes time."

我相信這是陳鑑林議員所指的資料，但這反映"NAPCO"是知道"switch on"需要一段時間，但他沒有說一定不會用。我純粹想澄清這點。

陳鑑林議員 :

由於這系統是需要繼續有"parallel information keyed in"，其實在"AOD"那天前後，有沒有安排工作人員跟進"stand-by system"？

Head of Information Technology, AA:

Yes, there were practices. There were rehearsals with staff --

Chairman:

I think Mr CHAN's question is actually on AOD have you got the manpower there standing by to operate the stand-by system?

Head of Information Technology, AA:

Yes, we did, because the data entry for stand-by would be done by the same people in the control centre. They were trained to do both. Yes. Yes, we did.

陳鑑林議員：

因為當日"FIDS system"經常發生故障，做同一項工作的人根本沒有時間做"stand-by system"。你會否同樣考慮到，若真的要"switch to stand-by system"，因為人手不足，那邊根本也做不到？

Chairman:

Is manpower a problem?

Head of Information Technology, AA:

No, it was not. Because once you switch over you don't need to go back to the original FIDS. You just focus on stand-by. They don't do 2 work at the same time.

Chairman:

Mr CHATTERJEE, can you confirm that in fact at no point between when the Board approved the building of the stand-by system until AOD, at no point was the view of yours, as well as the management, put to the Board that in fact

the stand-by system was built only for catastrophic failure of the main FIDS, that it wasn't actually built for substandard performance of the main FIDS?

Head of Information Technology, AA:

It was understood, I believe --

Chairman:

How was it understood?

Head of Information Technology, AA:

May I finish?

Chairman:

Please.

Head of Information Technology, AA:

The discussion in February started off with a contingency plan and it was understood by the Board that there was a contingency plan in case of non-performance of EDS. That is the first thing.

Chairman:

You mean during the discussion in February it was understood by everyone?

Head of Information Technology, AA:

I entirely believe that.

Chairman:

It was just understood? How do you arrive at an understanding? It is such an important thing which involves millions of dollars. You mean it was just assumed to be understood?

Head of Information Technology, AA:

We were talking about contingency plans. It was specified in the minutes and it was actually recorded in the minutes that we were talking about contingency plans.

Chairman:

I am simply asking whether it has been said anywhere that the contingency plan was not to cater for the substandard performance of the main FIDS? It was never mentioned? It was never discussed?

Head of Information Technology, AA:

Let me repeat the question then. Are you asking me whether we ever in writing said to the management that the stand-by FIDS is not to be used for catastrophic failure but for non-performance of EDS?

Chairman:

That is right?

Head of Information Technology, AA:

No. We never did that in writing specifically to address that point.

Chairman:

You never did?

Head of Information Technology, AA:

No.

Chairman:

Not to the management and not to the Board?

Head of Information Technology, AA:

No. But I still maintain it was understood because that was the reason it was brought up at the Board and at the same time why the stand-by system was

approved.

Chairman:

Thank you. I think we have to stop here. I believe that, Mr CHATTERJEE, your department is also responsible for the software of ACS and telephones, is it?

Head of Information Technology, AA:

ACS?

Chairman:

That is the security system.

Head of Information Technology, AA:

No, ACS is not my responsibility.

Chairman:

Nothing to do with you?

Head of Information Technology, AA:

Nothing to do with me.

Chairman:

What about the telephone system?

Head of Information Technology, AA:

The telephone system at this point in time is still the responsibility of Project since we haven't signed off.

Chairman:

What was your role?

Head of Information Technology, AA:

Telephone systems? The role? The role was only to do with cable allocation in early June, when I was asked to help with cable allocation. The installation of the telephones was still the responsibility of Project and the contractor.

Chairman:

Thank you very much. We might need to write to you to seek further information.

Head of Information Technology, AA:

Fine. I would be happy to.

Chairman:

I think the first session of today's hearing will end here. Mr CHATTERJEE, please note that we may at some stage order you to give further evidence and in that case you must attend those hearings. You may now withdraw.

Head of Information Technology, AA:

Thank you very much.

Chairman:

We will have a short break here. Resume in 10 minutes.

(Mr Kiron CHATTERJEE withdrew from the hearing)

(The hearing resumed at 4:38 pm)

第2節研訊

主席：

在未傳召第2位證人，香港機場管理局機場管理科客運大樓系統經

立法會調查赤鱘角新香港國際機場自1998年7月6日
開始運作時所出現的問題的原委及有關事宜
專責委員會
Legislative Council Select Committee to inquire into the circumstances
leading to the problems surrounding the commencement of the operation of
the new Hong Kong International Airport at Chek Lap Kok
since 6 July 1998 and related issues

理張佳蕙女士之前，我想徵詢委員的意見，張女士要求帶同以下的人士出席研訊：香港機場管理局運作規劃及技術管理經理林智宏女士。如委員沒有異議，我建議容許林女士在研訊進行期間陪同張女士，但她不可以席上發言或提示證人如何回答委員的問題。

如委員對研訊程序沒有其他意見，我宣布研訊開始，並傳召證人香港機場管理局機場管理科客運大樓系統經理張佳蕙女士。

(張佳蕙女士進入會議廳，
並由林智宏女士陪同)

主席：

張女士，多謝你出席今天的研訊。本專責委員會今天傳召你到本委員會席前作證，及出示與專責委員會研訊範圍有關的文據、簿冊、紀錄及文件。首先，本委員會決定所有證人均須宣誓作供，我將以專責委員會主席的身份為證人監誓。

你可選擇以手按聖經以宗教式宣誓，或以非宗教式宣誓。請依照放在你面前的誓詞宣誓。
請你起立。

香港機場管理局機場管理科客運大樓系統經理張佳蕙女士：

本人張佳蕙，謹以至誠，據實聲明及確認本人所作之證供，均屬真實及為事實之全部，並無虛言。

主席：

多謝。請坐。

Chairman:

Miss CHEUNG, the Select Committee has agreed that you can be accompanied by Miss Jacqueline LAM during the hearing to assist you in the handling of documents where necessary but she will not be allowed to address the hearing or to prompt you in any way in your replies to members.

The Select Committee will now deal with the papers, records and documents that the witness has been ordered to produce by the summons dated 6 November 1998. The Select Committee notes that the witness has already provided the following document pursuant to the summons: Witness statement

of Miss Vivian CHEUNG. Miss CHEUNG, are you now formally producing to the Select Committee the document mentioned above as evidence pursuant to the summons?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

I now declare the document mentioned above is admitted as evidence produced to the Select Committee. Mr Edward HO.

Hon Edward HO Sing-tin:

Chairman, first I would like to ask Miss CHEUNG to clarify for us her role as representative of the user, that is AMD, in the project, as far as FIDS is concerned - I think you can concentrate on that for a while - her role as a user representative vis-a-vis the Project Division? Obviously there would be a lot of inputs from the user to the Project.

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Hon Edward HO Sing-tin:

Can you clarify the relationship?

Manager - Terminal Systems, Airport Management Division, AA:

Sure. When I come to AMD, as stated in my statement, the design phase was almost complete so there was not much design input that we can put in. However, at a later stage then we do help the Project to confirm how the system would be used by the user. My role is to convey those messages and also meeting with Project to help them to attune the system design in order to deliver something that we could use. I do have some co-ordination role in AMD, especially at the early stage before IT was fully involved. I make sure that the concerns of AMD would be passed to Project.

Hon Edward HO Sing-tin:

Maybe Miss CHEUNG can tell us, because I can't find it in your statement to the Commission, when did you actually join AMD? You joined the AA a long time ago, in 1992, but when did you actually join AMD?

Manager - Terminal Systems, Airport Management Division, AA:

About June 1996.

Hon Edward HO Sing-tin:

You said just now that when you joined AMD the design stage was completed?

Manager - Terminal Systems, Airport Management Division, AA:

The design stage was completed. There are still some questions coming back and forth but they are confirmation of the designs, yes.

Hon Edward HO Sing-tin:

From the material that we can gather, there is still a lot of questions as to user's requirements and specifications, even up to April 1997?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon Edward HO Sing-tin:

When you say in June 1996 the design stage is completed, you are forgetting about the specifications?

Manager - Terminal Systems, Airport Management Division, AA:

We cannot change the specification. What I am saying is that the specification is already complete. We could change the specification only if we go through a procedure, request for change, which requires to sign out the CCA where costs would be involved, and that had never happened. My role in there

was that, for example, the colour of the display should be blue rather than green, those type of thing that does not involve design change. The tuning of the system how the user would like to have. Those are not design changes but they are clarification of how the user wanted to have the system to be used.

Hon Edward HO Sing-tin:

Chairman, can Miss CHEUNG explain to us what were the problems in agreeing to the technical specifications between AA or Project Division and EDS?

Chairman:

You mean the PTS, the particular technical specification that you are referring to?

Hon Edward HO Sing-tin:

It seems that there were a lot of discussions that went on for a long, long time, until April or whatever of 1997?

Manager - Terminal Systems, Airport Management Division, AA:

If I provide this information that is based on what I know, not that I have full involvement in those meetings. Before I joined AA there was quite a lot of communication between EDS and Project. What I believed was that EDS did not have full understanding of PTS and they had different interpretation. So there were quite frequent meetings between Project and EDS. I believe the AMD's consultant -- at the time we had one AMD manager called Ron GUNTHER also involved in those clarifications and tried to help EDS to understand what PTS wanted.

At a later stage, I think it was late 1996 or sometime, maybe early 1996, there was an agreement, after those clarifications, for changes. In fact one evidence shown to me that there were differences was that, whilst some of the Project people thought that they were not changes just that EDS had not previously understood our design, other people believed there were changes. Anyway, at the end of the day, we paid EDS for those changes. I think it was April 1997 when I learned that the entire programme was changed. In fact after

we understood that there was major change which required EDS to re-programme everything from AMD. I helped my boss draft a memo to Project to express our view that that would be quite risky that they had changed their design and that we were concerned that they had cut short the programme.

Hon Edward HO Sing-tin:

Chairman, from what we know, the IT Division of AA is the Division that had all the IT expert within AA, including yourself?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

Project Department, when we asked them sometimes they said "Actually we don't have this kind of expertise". From the IT point of view, from these computers' point of view, you told us that they actually didn't consult you, right, on the technical specification in the design stage? You only came in after everything had been agreed and you really got involved later on? Is that what we are told?

Manager - Terminal Systems, Airport Management Division, AA:

That is what happened, yes. There was a consulting group called Air-tech, which was employed by AMD.

Hon Edward HO Sing-tin:

Air-tech?

Manager - Terminal Systems, Airport Management Division, AA:

Yes, Air-tech. I think they started to work for AMD early 1996 perhaps or late 1995. The exact time I don't know. They left at the end of 1996 after I took over. Quite a lot of meetings when I read all the documents had their participation so I believe that they had some involvement there.

Chairman:

Can I clarify this point? AA had one consultant advising AMD on IT matters?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Chairman:

AA had another consultant advising Project on IT matters, CSE?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

You do know about CSE?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

So 2 different consultants advising 2 different Divisions, is that right?

Manager - Terminal Systems, Airport Management Division, AA:

I don't think CSE has a clarification role during that clarification stage. CSE's role, basically, was giving advice on the progress or auditing on the quality of the software. As I understand, they also have one mission which was to organise integrated test at the final stage. So at the early stage, during the design or clarification, I don't think they had any involvement. Reading those documents, I cannot see their names there.

Chairman:

Nevertheless, you had 2 different consultants advising 2 different Divisions,

right?

Hon Edward HO Sing-tin:

Advising just 1 Division - Project.

Chairman:

CSE is a consultant doing the things that you just outlined?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

To advise and help Project?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

There is this other consultant, Air-tech?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

Which was advising AMD.

Hon Margaret NG:

Madam Chairman, may I sound a note of warning here. From what I hear the witness say, she has no personal knowledge or involvement either. She has gathered it from documents. I think we should perhaps not go too much into that.

Chairman:

I am just seeking clarification.

Hon Margaret NG:

Exactly. I don't know if it would be a clarification.

Chairman:

If Miss CHEUNG has actually had access to documents, this is not purely hearsay. It is documents.

Hon Margaret NG:

We have access to documents too.

Hon Edward HO Sing-tin:

Chairman, I did ask the question of how much AMD is involved as an end-user, an end-user with IT expertise in your Division, how were they involved in the design in the projects? I think your answer was that you were not involved in the design but some other consultants were employed? That was your answer?

Manager - Terminal Systems, Airport Management Division, AA:

We were involved in the design in 2 aspects. One is from the user's point of view, to give an operational point of view, how functions should be used. Air-tech is a company who has operational design background and they give that point of view, rather than tell you how networks should be put together, those type of IT consultants. On the other hand, Project, on the design side, have consultants to show them architecturally how the system should be built, that was not the type of advice given by Air-tech. Air-tech doesn't give that kind of clarification.

Hon Edward HO Sing-tin:

Who gives that?

Manager - Terminal Systems, Airport Management Division, AA:

Who gives that? When I was in IT, IT did have some involvement in there, even starting at tendering stage. But the involvement was minimal, meaning that some documents were passed to us. That is why I have access to documents. Some documents were passed to us and we could see the architecture and see if that would fit into AA's overall design concept.

Chairman:

I would really rather not go into that area. I think Miss CHEUNG is here to answer questions on behalf of AMD in her role as user.

Hon Edward HO Sing-tin:

That is what I am addressing.

Chairman:

We had better not get into the phase when she was working with IT, getting involved with design and so on. I think we had better concentrate on the user role.

Hon Edward HO Sing-tin:

I am just trying to see as a representative of the end-user, who is ultimately going to manage these systems, operate these systems, and so on and so forth, how and whether there was any involvement of AMD and yourself in that process of, say, advising Project whether the specifications were right and so on?

Chairman:

Right at the early stage?

Manager - Terminal Systems, Airport Management Division, AA:

You mean from 1996?

Hon Edward HO Sing-tin:

From when you were involved because we are questioning you, not other people.

Manager - Terminal Systems, Airport Management Division, AA:

From mid-1996 when I moved to AMD, I started to have that involvement there but at the time when I move in to AMD, Air-tech had already been there for 6 months. So, primarily they had involvement there and I worked with them together. Then early 1997, I moved to Kai Tak, seconded to Kai Tak, and my involvement was less until I came back to AMD again in April 1997. Then I started to have heavy involvement including looking at the programme, the delay of the programme, change of schedule, and also looking at a demo of the system, seeing if it can really fit into the operational mode that we plan to have. There is involvement, yes. But if you ask have we proposed changes and required them to change certain things in order to fit in AMD's way of operation, we have changed minor things, things like I mentioned, colours, location of certain monitors, but not overall design.

Hon Edward HO Sing-tin:

We have got that. So if Project wanted to change certain things based upon their own decision, would they consult you on those changes?

Manager - Terminal Systems, Airport Management Division, AA:

Would they consult me?

Hon Edward HO Sing-tin:

As users?

Manager - Terminal Systems, Airport Management Division, AA:

In 1997, yes, they would consult me. If they wanted to have major changes they would consult me, certainly.

Chairman:

It has been put to us by Mr CHATTERJEE, for example - and also we see in the records - that the FIDS system, or it goes beyond FIDS but the FIDS system

definitely is one of the things that was very much Project driven. When you joined AMD in that capacity, representing the user, do you believe that the right balance was struck between the Project Manager and the user?

Manager - Terminal Systems, Airport Management Division, AA:

To be fair, it was not very well balanced. I believe that we have tried to raise our concern when we have opportunity and we have concerns. However, in many, many cases it was not handled or was not really rectified. What I believe was that Project did have a mission there to complete the project on time within budget and they had to achieve that objective. At the time they did want to have overall control in case we had major changes which would delay the development. Actually that was what we were trying not to do, that is, not to create major changes. What we were trying to do, at least when I started to draft our procedure, was to see how we could fit into the overall design, rather than having to change the system to fit what we wanted.

In fact there were 2 different points of view: one was that the entire FIDS is designed by people who have international design experience. They believe that they will give us a more powerful system, more advanced system which is different from Kai Tak. Then we have an operational group, who really based their experience on Kai Tak, where they don't have that chance to use advanced technology. To be fair, we could not just look at a single point of view, that I want to run CLK the Kai Tak way. It is reasonable to look at the design and try to create operational procedure to fit into that design mode. That is the entire concept. We have hired consultants from outside the country. They designed a great system for us, a great airport for us. If we want to run the Kai Tak way it doesn't make sense. We do have to fit into the design concept.

Chairman:

In other words, you accepted the broad direction ahead, which was to design the whole new system for Chek Lap Kok?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Chairman:

By the time you got involved it was a bit late in the day to change anything

in the specification so you were trying to do everything within certain parameters which were already put to you?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Chairman:

But you also said at the beginning of that that there were instances where you put forward ideas but it seems that your ideas were not taken on board?

Manager - Terminal Systems, Airport Management Division, AA:

Not ideas. When I am talking about design changes we are talking about we have concern about the programme changes, we have concern about the deferred functionality, things like that. But that was not taking --

Hon Edward HO Sing-tin:

If I may then get to that situation in April and the question of whether another supplier Ferranti should be pursued?

Chairman:

Before we get into April, there is a chronological order.

主席：

陳鑑林議員。

陳鑑林議員：

主席，說廣東話證人可以聽得懂嗎？

客運大樓系統經理：

可以，我聽得懂。

陳鑑林議員：

我想瞭解張小姐在"AMD"時，你們與"Project"的關係如何。你和他們曾經合作數年，雙方的合作情況如何？

Chairman:

You can answer in English if you wish.

Manager - Terminal Systems, Airport Management Division, AA:

Thank you. I think that when I joined AMD we did have quite a lot of meetings and this question had been raised. My feeling, at least at my level, we had a good working relationship but, however, there were occasions that we had differences in opinion, professional opinions, and confrontation. I think that happens everywhere. But we did work together and we did have meetings frequently to resolve problems. However, some of our concerns were not taken care of because probably they had other concerns that we didn't know of but I would not say that we didn't work together.

陳鑑林議員：

你們與"AMD"的"consultants"及"AA"的"consultants"之間的關係如何？

Manager - Terminal Systems, Airport Management Division, AA:

I worked with Air-tech for a about 5 to 6 months, starting June 1996, they were very busy. Always on the site. At the time our offices were still in Wan Chai, the consultant, Air-tech, was always on the site having meetings with Project. I believe that they worked quite close. However, CSE, we didn't work with them very closely because there're not many occasions or cases that we needed to work together. They didn't participate in progress meetings or they didn't participate in -- at least the meeting I was there, I didn't see that they were there.

Chairman:

Miss CHEUNG, there was this Task Force, System Task Force, which was formed at the end of 1996?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

Which was actually sort of being --

Manager - Terminal Systems, Airport Management Division, AA:

IT.

Chairman:

It was Mr CHATTERJEE's group?

Manager - Terminal Systems, Airport Management Division, AA:

I remember that.

Chairman:

Which was supposed to report to Chern HEED and Raymond LAI and so on. During the formation of that Task Force there was quite a bit of discussion as to who should be on it, who should represent whom, and so on? You are aware of that, are you?

Manager - Terminal Systems, Airport Management Division, AA:

Whether there is a lot of discussion or not I don't know, but I know the conclusion, yes.

Chairman:

At one stage Mr K S NG, your boss, put forward the idea that you should represent AMD on the Task Force and there was some discussion as to how you should represent AMD and what IT's role was. Mr CHATTERJEE put to us that, yes, you are the logical person to represent AMD as the user but that there

was technical representation as well on that Task Force which should be a role undertaken by them, by IT. Did you accept that? Did you accept there is a separation between technical and user representation?

Manager - Terminal Systems, Airport Management Division, AA:

I think that is reasonable. Actually that is what is happening today. I don't think we have defined, at least in my mind it was not defined, that that's what happened. In fact at that time we didn't know what would happen to IT. It was not clearly defined that IT was going to take over the system after the system was built. The organisation was not clearly defined at that time. Probably Project was going to be an engineering group which could continue to support the system or IT was going to take over. At the time it was not clearly defined. However, the Task Force, at least from our point of view, started to assume that IT later on is going to take care of that system. Eventually, since they were going to take care of that system, from the technical point of view they should start to get involved. That is what happened today.

From the user's point of view, if we can not use this system and when the system goes down we will chase technical people and try to have it fixed right away. Then it is IT's role to go in and try to sort it out how to fix the system. So each of both parties has a strong role there, yes.

Hon Emily LAU Wai-hing:

Madam Chairman, I want to ask Miss CHEUNG when you have suggestions, when you have things, do you approach Project directly or do you do it via IT? Are you able to give your views directly to people like, say, Mr OAKERVEE?

Manager - Terminal Systems, Airport Management Division, AA:

If I really wanted to, I could.

Hon Emily LAU Wai-hing:

I asked you what happened?

Manager - Terminal Systems, Airport Management Division, AA:

What happened I think in 1996, 1997, a lot of times I and IT were in the same meeting and I could raise my concern in the meeting. Then starting from early 1998 when Project actually had IT staff represents Project then our involvement of going to the meeting was less.

Hon Emily LAU Wai-hing:

Sorry? You said Project had IT staff to represent Project? As far as we are told about this Task Force IT also represented AMD?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Emily LAU Wai-hing:

So IT represented both and they talked to themselves?

Manager - Terminal Systems, Airport Management Division, AA:

No. Let me clarify that. IT would represent AMD. In a technical sense, yes, we do need IT. They have their role. Later on the system will have to be taken care of by them, like today. When the system crashed, the first people they will go to is IT. They have to go and fix the system.

Chairman:

They have a maintenance role?

Manager - Terminal Systems, Airport Management Division, AA:

They have a maintenance role. But at the time we do testing and commissioning in early 1988, Project also asked for IT's help, for example, sending IT staff to go to UK or ask IT's assistance to do training co-ordination.

Chairman:

This is Rita LEE you are talking about?

Manager - Terminal Systems, Airport Management Division, AA:

Rita LEE. And training co-ordination. In those cases actually IT are helping our Project to do the co-ordination work and verification work.

Hon Emily LAU Wai-hing:

What I want to ask you is did you have any difficulty in communicating with people at Project or you had to do it via IT?

Manager - Terminal Systems, Airport Management Division, AA:

No. If I wanted to communicate with them I could communicate with them. I didn't have difficulty. However, we knew of the IT's role there. We would also go to IT. Most of the time actually the 3 parties were together. IT, AMD and Project were working together. Of course there was a lot of detailed working group, you know, go through a very, very detailed technical meeting, like all the PR, problem report, go through item by item, which is in a very technical sense, like the CPU, central processing unit, doesn't work. Those type of things, a detailed meeting, I don't have to be there.

Hon Emily LAU Wai-hing:

What I want to ask you is: Because we were told that there are some very forceful personalities at Project, did that pose a problem to you and your colleagues in working with them?

Manager - Terminal Systems, Airport Management Division, AA:

At my level we don't really have to work with forceful persons, a strong personality. I do know who you refer to but --

Hon Emily LAU Wai-hing:

As far as you were concerned you did not encounter any problems?

Manager - Terminal Systems, Airport Management Division, AA:

Not at our level, but when the memo goes up and up and up maybe it didn't get taken care of, some stoppage over there. I don't know. At our level I don't

have that problem, no.

Chairman:

You mentioned deferred functionality and Ferranti. We are moving into the April time-frame. Can you tell us something there? We saw memos of course from yourself referring to deferred functionality and also the fact that EDS was developing software from scratch and you were very worried?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

You cited those as examples where your views, your concerns were in fact not taken on board by the Project Department. Can you let us know how you felt about that? Did you feel that you were really in trouble - AA I mean - or did you feel that you just had to accept it as you went along?

Manager - Terminal Systems, Airport Management Division, AA:

We raised our concern. However, Project had a different point of view. They have overall project management experience. From my experience, I felt that - for example, when we talk about the programme, according to my experience that programme didn't look reasonable to me. I raised my concern.

Chairman:

Can you clarify? Which programme? You mean the deferred functionality? Which one? The programme?

Manager - Terminal Systems, Airport Management Division, AA:

When they proposed to change the programme I think that was in March 1997.

Chairman:

You mean the Build?

Manager - Terminal Systems, Airport Management Division, AA:

No, that was not the Build. The Build was later on, I believe. March 1997 we received -- I don't know if I have a copy with me here.

Chairman:

When you say the "programme" what programme exactly are you talking about?

Manager - Terminal Systems, Airport Management Division, AA:

This is called FIDS EDS works programme. I believe this document was submitted.

Chairman:

Which document?

Manager - Terminal Systems, Airport Management Division, AA:

I don't have a reference number.

Chairman:

We have to identify the document first. Volume XI Paper no. B293. Have you got it, members? Please, Miss CHEUNG?

Manager - Terminal Systems, Airport Management Division, AA:

Are you reading a memo from David STEWART to K C TSUI?

Chairman:

That's right.

Manager - Terminal Systems, Airport Management Division, AA:

I drafted a memo for David STEWART when we received a revised EDS works programme and when I reviewed the programme I was concerned that, it looked like some basic functionality where usually a package should have. Now the EDS was proposing that they were going to rewrite them and I was concerned that that would create a lot of risk and also that would create a time delay. The programme also showed that there might be time delay, therefore, they shortened the program by cutting some of the testing and other areas. So I raised my concern. However, there was not much reply on this one. Right after this, I understand that K C went to the UK and tried to work out a programme which was new Build with them.

Chairman:

Did you have an opportunity to meet with K C TSUI before he went off to the UK?

Manager - Terminal Systems, Airport Management Division, AA:

He went off to the UK?

Chairman:

Before he went, did you have a meeting to discuss the way that you saw it with these deferred functionalities?

Manager - Terminal Systems, Airport Management Division, AA:

No. I did not have a chance to meet with him about this concern, no.

Chairman:

What about AMD? Anybody else in AMD? I am trying to establish whether the user input is actually discussed with Project?

Manager - Terminal Systems, Airport Management Division, AA:

I don't think so. I don't think other people in AMD could discuss at this level, no, I don't think so.

Chairman:

When you say "this level" what exactly do you mean?

Manager - Terminal Systems, Airport Management Division, AA:

"This level" meaning that this is actually quite a level of detail involving understanding of their programme, understanding of some technical details. I don't think we have that someone in AMD, besides me. If I have not had a chance to talk to K C on my concern on this item, I doubt that somebody else would.

Hon Emily LAU Wai-hing:

Can I ask whether she asked for a meeting with K C TSUI?

Manager - Terminal Systems, Airport Management Division, AA:

No, I didn't ask for a meeting.

Hon Emily LAU Wai-hing:

Why not?

Manager - Terminal Systems, Airport Management Division, AA:

This memo goes through from my boss to K C I raised my concern to my boss, to K.C., and then we send to K C and wait for his reply, and then he went to the UK.

Hon Emily LAU Wai-hing:

He didn't reply before he went?

Manager - Terminal Systems, Airport Management Division, AA:

No. He came back and he did a reply, if I remember correctly. He came back and he replied and said something like "You don't have to worry about it

because the programme has now been rewritten, this Build".

Hon Emily LAU Wai-hing:

Did you know about him going before he went? ?

Manager - Terminal Systems, Airport Management Division, AA:

I probably knew.

Hon Emily LAU Wai-hing:

You didn't want to see him personally to make sure that he registered all your concerns before he left for the UK?

Manager - Terminal Systems, Airport Management Division, AA:

I actually thought this was good enough.

Hon Emily LAU Wai-hing:

This memo that he didn't reply to?

Manager - Terminal Systems, Airport Management Division, AA:

I thought even I addressing him would not be enough. That was why I asked my boss to address him.

Chairman:

But your boss is not an IT man?

Manager - Terminal Systems, Airport Management Division, AA:

No.

Chairman:

He didn't really know enough about the details that you would know

because you have more of the expertise, right?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

Can I ask for clarification of this memo, something that is written here in the first paragraph. EDS is now proposing a highly customised system, rather than a package system as originally planned. Now, this memo is April 1997. They were awarded the contract 1995, middle of 1995. Supposedly they were supposed to deliver everything by the end of 1996. This is April 1997?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

The statement here is that they are now proposing a highly customised system and the way I interpret it is they would be developing it from scratch, which is the word actually you used also, rather than a package system. Is it true that originally there was a package system that they could have used?

Manager - Terminal Systems, Airport Management Division, AA:

What I understand is that at least during the tender stage or a demonstration that EDS showed us was a system they already had that they were using it in Macau.

Chairman:

When?

Manager - Terminal Systems, Airport Management Division, AA:

1994, 1995, something like that.

Hon Edward HO Sing-tin:

Was that a knowledge that was given when they tendered the Project?

Manager - Terminal Systems, Airport Management Division, AA:

I think that if you have gone through some of the - I don't know if you do that - some of the transcript of the Commission of Inquiry, this issue was also brought up, why this much change and so much change, and the Macau system was also brought up. So there are some evidence over there.

Hon Edward HO Sing-tin:

Since you are not involved in that I don't want to go into that particular phase. I just want to clarify this statement which you made. You drafted this memo?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

So your understanding at the time was that there could have been a package system but they decided not to use it, for some reason?

Manager - Terminal Systems, Airport Management Division, AA:

It could have a package system. If they didn't have it, they could purchase from somewhere.

Chairman:

Miss CHEUNG, here you say "rather than a package system as originally planned". I think that is very important for us. Your understanding at the time must have been based on something that you have come across in the past prior to this memo. Could you let us have the documents which helped you to come to this view that they in fact originally had something in a package form and that was in the original plan. Do you see what I mean? If you can supply that to us afterwards it is all right?

Manager - Terminal Systems, Airport Management Division, AA:

Let me seek for it.

Dr Hon Raymond HO Chung-tai:

Miss CHEUNG, the same letter, Page 2 Paragraph 4. 90 activities are mentioned here under the deferred section. Do you think that there is a very high percentage of all the works that should have been carried out without changes comparatively?

Manager - Terminal Systems, Airport Management Division, AA:

90 activities? I don't have the programme right now. The programme is quite a thick programme.

Dr Hon Raymond HO Chung-tai:

I just want to get your impression, was it really very substantial changes, 90 activities?

Manager - Terminal Systems, Airport Management Division, AA:

This 90 doesn't refer to the changes. It is saying that these 90 activities are mentioned on the deferred section.

Dr Hon Raymond HO Chung-tai:

Not necessarily the deferred functionalities?

Manager - Terminal Systems, Airport Management Division, AA:

No. Later on they explained to me that under deferred functionalities they were mainly deferred activities. So 90 activities might only represent 20 functionalities.

Dr Hon Raymond HO Chung-tai:

I see. At that time when you wrote this memo and also later on you wrote the one in the middle of April, I think around the 16th, you were very unhappy that all these changes were to be carried out, all these deferred functions were to

be accepted?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Dr Hon Raymond HO Chung-tai:

How come in your statement you change your tone somewhat. Have you got Paragraph 12 of your statement? Page 8, reference Paper no. B225. It says here at the fourth line:

"Although it would have been ideal to have all the functions (referred to as Build 2.1) in time for AOD, it was more important for EDS to deliver a basic functional system, one which they promised would be installed on site by the end of 1997, and one which we could use for training purposes".

I will not continue to read on. You have changed your tone and it seems that you were trying to speak for EDS?

Manager - Terminal Systems, Airport Management Division, AA:

Did I try to speak for EDS? I think it was a decision we made and we had made a decision to support the idea. When they gave us the deferred functionality, I think there were 18 of them, I believe there were 18 of them, and we were asked to look at it to review and IT reviewed it critically and then subsequently I had a meeting with Project. After the meeting we agreed that there were a couple of more important functions that could not be deferred and other functions which were functions supporting the system could be deferred. Administration function is not an operational function. That can be deferred, with the view that EDS must provide a 24-hour hotline support. That was the agreement. Of course I was not happy but that was the agreement set up. After the meeting we told them that two critical functionalities could not be deferred. Others, as they were support functionalities, as long as EDS could continue support on a 24-hour basis we could allow them to be deferred.

Dr Hon Raymond HO Chung-tai:

Who in the Project Division did you meet?

Manager - Terminal Systems, Airport Management Division, AA:

Paul EVANS.

Dr Hon Raymond HO Chung-tai:

He accepted that explanation?

Manager - Terminal Systems, Airport Management Division, AA:

Explanation of?

Dr Hon Raymond HO Chung-tai:

That certain deferred functions out of the 18 could be accepted to be carried out later?

Manager - Terminal Systems, Airport Management Division, AA:

Yes, correct.

Chairman:

Can I refer you back to the memo which you drafted for David STEWART, Paragraph 3 on Page 2. You said that in fact K C TSUI did not even respond to this memo. Is that a fact?

Manager - Terminal Systems, Airport Management Division, AA:

He did not respond to this memo right away but when he came back from the UK I believe I saw something that he said that "I have gone to the UK and now we have set up a new programme", something like that. I believe that was --

Chairman:

My question really is - never mind what he did after he came back - but at that point in time obviously you were very concerned with the changes that they were making. This seems to be quite a crucial paragraph because it says:

"Could Project Division please advise us from the project management point of view if the systems can still meet the system performance standards and functional requirements given the deferral items?"

Then you go on:

"It is important that the Project advise us if these programme changes affect the delivery of a system that is reliable and up to performance standards in time."

And so on and so forth. Then the last line:

"Are these acceptable from a project management point of view? Given that EDS is deferring so many basis modules, more testing not less would seem to be needed."

Obviously you were concerned about various points: First, whether such deferred functionality is, from a project point of view, acceptable without compromising performance standards and also the fact that there seems to be some test changes as well. You were also concerned coupled with that you had the test changes. You seem to suggest that performance would be compromised if that was the case.

You now tell us you never heard from Mr TSUI before he went to the UK. Weren't you very, very concerned at that stage to discover that he went without actually discussing with the user your major concern? This is not a small concern. It is a major concern, that performance would be compromised?

Manager - Terminal Systems, Airport Management Division, AA:

Yes, I was concerned, yes, and I have raised to my boss and I wrote a memo to K C I did not, like you said, go to his office, or look for him, or fight for it very hard, no. But I have great concern. That is why I wrote a memo.

Chairman:

After he came back were you satisfied that your concerns were mitigated, that what they did to compensate for all these things was in fact adequate to meet your concerns?

Manager - Terminal Systems, Airport Management Division, AA:

When he came back I think that it was explained to us that there would be different Builds, meaning that if each Build could be completed within time then we still had things to operate on and each Build could be tested separately. So the new programme seemed reasonable to me at that time. After he came back I did not raise more concerns.

Hon Emily LAU Wai-hing:

Can I refer Miss CHEUNG to her own memo to Mr Chern HEED and that is in Volume X under Para 19. That is a memo dated 16 April. According to our records, Mr K C TSUI went to the UK on 9 April. By then I don't know whether he would have come back but it is about a week after he visited EDS in the UK. Have you got that in front of you?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Emily LAU Wai-hing:

If we look at what you said in the -- maybe we don't need to read the whole thing. If we read the third paragraph:

"March this year, EDS has approached Ferranti (contractor for AODB) and considered to use Ferranti's software as an alternative solution for HK FIDS."

Then you go on to the end of that paragraph:

"I doubt that EDS is able to develop a stable product from scratch to AA on time. It is clear that we are putting ourselves on bleeding edge."

Then the next paragraph, the last sentence:

"However, by reviewing their proposal, my confidence level of EDS'

capability to delivering the rest has been dropped below 50 per cent."

This is written on 16 April. I don't know whether by that time Mr TSUI had returned from his visit and whether you had a chance to talk to him. Can you tell us exactly what was on your mind at that time that you wrote in such a way?

Manager - Terminal Systems, Airport Management Division, AA:

Like I said, I did have, especially when I knew that EDS was looking at other ways to deliver the system. As I explained before, at least when I analysed that I saw that they were trying to develop systems from scratch, although they explain to me now it is not 100 per cent from scratch and there are some ready-made components in there. At the time my concern was really if they were going to do that with a short timeframe, based on my knowledge and experience, I didn't see such a large project could be delivered within that short time-frame, with the test period they specified. So my confidence level was low at that time.

Hon Emily LAU Wai-hing:

Do you remember whether that was written after K C TSUI had come back and you had talked to him or not?

Manager - Terminal Systems, Airport Management Division, AA:

This is probably not, he has not come back. If you read on top, it says "as at 6 April 1997" I reviewed the status report on 6 April.

Chairman:

16 April.

Manager - Terminal Systems, Airport Management Division, AA:

The first paragraph. I believe that I was responding to that 6 April 1997 status report. At that time I have not received a new revised programme from K.C.

Hon Emily LAU Wai-hing:

At that time you were very worried, very concerned?

Manager - Terminal Systems, Airport Management Division, AA:

Yes. I was very worried.

Hon Emily LAU Wai-hing:

And your confidence level of EDS was below 50 per cent?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Emily LAU Wai-hing:

But then after Mr TSUI came back you received information from him and that reassured you?

Manager - Terminal Systems, Airport Management Division, AA:

Did that reassure me? Really I still have concerns of course.

Hon Emily LAU Wai-hing:

But not to the same degree?

Manager - Terminal Systems, Airport Management Division, AA:

Not to the same degree. We also thought that we had to closely monitor their performance when they came back and said EDS fully committed. And Project said they also had decided to assign someone to monitor them very closely and they knew it was a tight programme and it needed tight monitoring. I think at that time we had concern, we were worried, but we were giving an opportunity for them to prove that it could work. When he came back we did not make a conclusion right away, "No, it's not going to work". Yes, we took the programme and let them work on it.

Hon Emily LAU Wai-hing:

In the subsequent months, the developments, were you happy? Were you

quite reassured?

Manager - Terminal Systems, Airport Management Division, AA:

It came to July, September, and then many slippages show that the time was still very tight for them and still they could not complete their programme within the time they specified. So there was slippage and of course we had more concern. Starting from August or September there were quite a lot of meetings between AMD and Project and also we started to develop this training programme for AMD.

From the user's point of view, when we raise a concern we would raise the concern that "When can we use it?" If we say that "You will not be able to deliver the system to me in April 1998", they would challenge you there by "how can you prove that?" The only thing we can address is that "I need a system in December so I can do training". That is how we tried to push them, step-by-step. From September, they would produce this master programme for training and ask them to deliver certain things by a certain time, and we could start to do hands-on and training. That is how it went.

Hon Margaret NG:

Madam Chairman, maybe this witness can help me clarify something. Just looking at Volume X under Paragraph 18 there is a memo by Chern HEED, your department head at AMD, dated 3 April to Douglas OAKERVEE. This memo seems to be about the same subject, the possibility of deferring some functionalities. This is not copied to you but have you seen this before?

Manager - Terminal Systems, Airport Management Division, AA:

Can you give me a minute.

Hon Margaret NG:

Certainly.

Manager - Terminal Systems, Airport Management Division, AA:

I believe I have seen this before because it sounds very familiar. I think I had input on this.

Hon Margaret NG:

Does it strike you that it is about the same thing? Is it about the same thing, because it is certainly about the same time? It is a day ahead.

Manager - Terminal Systems, Airport Management Division, AA:

I believe so because we do have discussion with AMD about our concerns.

Hon Margaret NG:

Can you tell us why is it that on 3 April you have Chern HEED writing a memo on deferring functionalities to Douglas OAKERVEE, and then the next day there is a memo from David STEWART to K C TSUI? How do these people relate?

Manager - Terminal Systems, Airport Management Division, AA:

I think we have concern at all levels. I can only explain it that way.

Hon Margaret NG:

You don't have a unified, sort of centralised view and then communicate with the other side? At different levels you just go to various people you have been talking to?

Manager - Terminal Systems, Airport Management Division, AA:

Different cases. I believe that working levels do have a working level relationship. We do address concerns to each other, sometimes informally, sometimes formally. In the cases where I don't think that concern has been taken care of properly, then I will escalate to my boss. Then my boss will address it. If he is still not able to address it, it will escalate to Chern. In this case I think Chern also felt that this was something that he needed to take steps.

Hon Margaret NG:

Did you say you had an input into this memo?

Manager - Terminal Systems, Airport Management Division, AA:

It is probable because we do have discussion on this. It is not that I drafted this, but I do believe I had some input.

Hon Margaret NG:

Do you know if Mr CHATTERJEE had any input in this letter?

Manager - Terminal Systems, Airport Management Division, AA:

That I could not comment.

Hon Margaret NG:

That would be separate, if there has been any?

Manager - Terminal Systems, Airport Management Division, AA:

Not to my knowledge.

Hon Margaret NG:

Thank you.

Hon Edward HO Sing-tin:

We want to stay a little bit on that e-mail that we were looking at from Vivian CHEUNG to Chern HEED.

Chairman:

Paragraph 19.

Hon Edward HO Sing-tin:

On 16 April, this is 12 o'clock noon, 12.12 pm, you were reporting on the

status of 6 April and I think Mr K S NG left for the UK on the evening of the 8th?

Manager - Terminal Systems, Airport Management Division, AA:

K C TSUI.

Hon Edward HO Sing-tin:

K C TSUI, I am sorry, on the evening of the 8th?

Manager - Terminal Systems, Airport Management Division, AA:

He came back or he went?

Hon Edward HO Sing-tin:

He went. If you see the next memo, the e-mail, it is from Robert DUNSDON to Graham W PLANT you will see that "I am aware that K C is going to the UK tonight." They were flying off that night. That is where I got the date. Anyway, later on in this same document, another e-mail, from K S NG to Chern HEED, also on the same day as your e-mail to Chern HEED, but at 2.30 pm in the afternoon. It is quite a quick response actually from Chern HEED, who had an e-mail to K S NG and said that he endorsed your comments.

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

He said:

"I think we need an independent risk assessment of EDS ability to complete the core system."

And so on and so forth. In fact this is K S NG's memo, K S NG to Chern HEED. "The alternative is to postpone airport opening". He was looking at this very, very seriously. The question I want to ask is this. This is 16 April. I don't know whether you recall at that time whether K C TSUI has returned from the UK on that date?

Manager - Terminal Systems, Airport Management Division, AA:

I really don't know.

Hon Edward HO Sing-tin:

Obviously some very serious concerns were expressed by Mr K S NG?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

Are you aware of any action on the part of Project to address these concerns?

Manager - Terminal Systems, Airport Management Division, AA:

Not that I am aware of. K C TSUI came back and he did a presentation of his finding and decision in the UK. I was not in that presentation. The presentation was to high level management. I am not sure if they discussed these kind of things in there. However, I do not recall any response or discussions about postponing the airport opening because of the concern.

Hon Edward HO Sing-tin:

The concerns are very, very serious, to the extent that Mr K S NG even felt maybe the airport opening should be deferred?

Manager - Terminal Systems, Airport Management Division, AA:

I agree, yes.

Chairman:

I would just like to enlighten members that at Paragraph 20 there is the

following document. Paragraph 20 is a memo from Peter TAM to the Chairman and Raymond LAI, Head of Commercial Division, to the Vice-chairman, but copied to Chairman and Raymond LAI. In the memo at the first line:

"I spoke to K C TSUI yesterday afternoon."

So by the 16th, K C TSUI was back.

Hon Margaret NG:

Maybe they spoke on the phone.

Chairman:

Sorry?

Hon Margaret NG:

Madam Chairman, "speaking" may not mean meeting face-to-face.

Chairman:

All I'm saying is that this memo seems to indicate that he was back, he was there?

Hon Margaret NG:

Why?

Chairman:

Because his trip to the UK had enabled him to gather a better understanding.

Mr Edward HO, do you have any other questions?

Hon Edward HO Sing-tin:

The question remaining is after these various views of concern were expressed, K C TSUI came back, and are you saying to us then his explanation to you after his UK trip about these various Builds and so on fully satisfied your

concern and that of your department's concern?

Manager - Terminal Systems, Airport Management Division, AA:

Fully satisfied? I still had my observation. However, that he came back and said that EDS was revising the programme and co-operative and they set up a management team to manage them, so it looked like they were doing something to rectify the situation. We were monitoring the situation and looking if the situation would be improved.

Chairman:

You said that K C TSUI gave a presentation to senior management on this trip and so on. That was immediately after his return? I'm not going into that. I'm just clarifying that because we will have to seek the material from perhaps Mr TSUI himself. It is just that I don't think we have actually been told that there was such a presentation.

Manager - Terminal Systems, Airport Management Division, AA:

Whether there is a presentation, really I think we should, if you allow me, go back and take the time to seek the documentation. That is in my memory. I remember somebody told me there was a presentation and later on I received some material from that. Because I did not participate so we had better verify that.

Hon Margaret NG:

Madam Chairman, you remember that is a June presentation?

Chairman:

Are you talking about the June presentation or are you talking about K C TSUI's --

Manager - Terminal Systems, Airport Management Division, AA:

I think K C came back and did explain the situation to everyone and there was a programme. However, when was that and when did I receive the documents --

Chairman:

After you go back, can you assist this Committee with whatever material you have and in the meantime we will try and pursue it through another channel as well?

主席：

蔡素玉議員。

Hon CHOY So-yuk:

Madam Chairman, I would like to come to the topic of the standalone system. Can I refer to Miss CHEUNG's statement --

Hon Edward HO Sing-tin:

Can we have a couple of more minutes on the Ferranti alternative?

Chairman:

Let him ask about the Ferranti.

Hon Edward HO Sing-tin:

It was suggested, it was discussed, and I wanted to hear Miss CHEUNG's view of what happened as far as that alternative was concerned.

Manager - Terminal Systems, Airport Management Division, AA:

Ferranti's situation was quite strange. In fact we were not notified or informed or consulted of this situation formally. As you can see, somebody dropped me an e-mail and told me that that was what happened. I don't even know who had that e-mail. They had blocked off the name. So I found out from a different channel that they were seeking a different solution. There was no formal consultation or meeting with us that they were looking for different alternatives. I think that suggested that someone was investigating if there was a possible solution.

Hon Edward HO Sing-tin:

Miss CHEUNG, you have an e-mail to Chern HEED yourself on 16 April on this?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

You yourself were aware Ferranti has an alternative?

Manager - Terminal Systems, Airport Management Division, AA:

If you read the attachment you can see Ferranti's proposal. I don't know if we have Ferranti's proposal there. There is a comparison of the Ferranti proposal. If you read through that you will gather the information that Ferranti was proposing something that they have already had in hand.

Hon Edward HO Sing-tin:

I just wanted to ask you why was that proposal not adopted?

Manager - Terminal Systems, Airport Management Division, AA:

That I don't know. I think that may be after they had analysed and concluded that the risk was about the same.

Hon Edward HO Sing-tin:

You don't know? You were not involved?

Manager - Terminal Systems, Airport Management Division, AA:

I am not involved.

Chairman:

But from a user's point of view you were more comfortable with a Ferranti package product than the unknown that EDS was offering?

Manager - Terminal Systems, Airport Management Division, AA:

You are right. A proven package is always a better way to go.

Chairman:

Anything else, Edward?

Hon Edward HO Sing-tin:

No.

Hon CHOY So-yuk:

Madam Chairman, I would like to ask the witness about this fall-back system. Can I refer to Miss CHEUNG's statement, Paper no. B225, Page 9, Paragraph 13, under contingency plans. In the middle of the paragraph Miss CHEUNG says that:

"EDS on many occasions assured the Authority that the systems could be run separately by different builds if a fully integrated system could not be completed in time..."

Indeed, there were meeting minutes:

"...If so, manpower for additional manual input would be provided by EDS".

It further says:

"It was later confirmed that it would take much longer to separate the system than to complete the designed system."

At the time when you were actually told by EDS on these many occasions which you said, did it occur to you that the standalone system would require more time to be working if it would be separated from the integrated system?

Manager - Terminal Systems, Airport Management Division, AA:

No. When we saw that the system would be built by Build, my impression was that since it was built by Build and then so you have a Build already and then you put them together, so it should be available before the whole system, available earlier than the fully integrated system. However, later it was known to us in 1998, early 1998, they actually had to do something to unstitch them and it would take longer.

Hon CHOY So-yuk:

You only were aware of the fact that it would need a longer time to unknit the whole system into a standalone mode from the integrated system only in early 1998?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon CHOY So-yuk:

At that time would you regard that something could be done in order to make -- would you have enough time to make it in such a way that the integrated system could be falling back to the standalone mode within a much shorter time? Would you think you would have time to do that?

Manager - Terminal Systems, Airport Management Division, AA:

I could not comment on that because, even if I say they could, EDS would come back and say that no we couldn't. It really depends on the developer if they could do it or not. EDS came back and said it would take longer.

Hon CHOY So-yuk:

Did you ever ask EDS to work on a system whereby it could be unknitted quickly if the integrated system wouldn't work?

Manager - Terminal Systems, Airport Management Division, AA:

There were many discussions. If I recall correctly, September or October, all the way to early 1998 there were concerns from many, many parties. Not only at my level, director level was also concerned if they could deliver a standalone mode. Later on it was proven they could if we still wanted to meet the time. At our level we worked with EDS and asked them to tell us if they could. In many cases they said they could.

Chairman:

Could you supply us with the evidence in documentary form where they actually informed you, directly? I mean EDS documents? You have referred us to Attachment 6, which is Paper no. B225-6, Paragraph 3.06, and there of course you mentioned that Mr K S NG asked whether EDS would provide manual assistance to help AMD staff training, hands-on practice on full system before Build was completed to provide integration of system manually during hands-on practice, and so on. That was based on Mr NG's understanding that in fact it could also be operated on a standalone mode?

Manager - Terminal Systems, Airport Management Division, AA:

I think the answer "yes" is there.

Chairman:

Can I just follow this because it is quite important: "Noting that all the related systems could be operated on a standalone condition. When these were completed K S NG asked." What we need to establish really is whether there was an understanding that 2 to 3 weeks work needed to be done before the integrated system would actually be made ready to be reverted back to standalone very quickly? Do you see what I mean?

We were told by Mr CHATTERJEE yesterday that he was aware that 2 to 3 weeks' work was needed to be done before this switch back could actually be effected, but it wasn't done. So by the time we got to February we had gone very far and there was no going back.

Can you tell us whether there was any point in time between when you first learnt of the Build system and 98 when you knew that the integrated system couldn't revert back to the standalone, whether there is any point in time when you were actually aware of the fact that 2 to 3 weeks' work had to be done to prepare that system to revert back?

Manager - Terminal Systems, Airport Management Division, AA:

I do have that impression, but I don't think there was black and white documentation I could refer to where it says that after 2 to 3 weeks' work it can revert back. But the impression is that EDS kept on telling us that it could become a standalone mode with some work. 2 to 3 weeks, I think that was also the impression I got. I don't think there was formal documentation or they had an agreement to say that it would need 2 to 3 weeks' work to revert back to standalone.

Hon CHOY So-yuk:

Madam Chairman, I think in Miss CHEUNG's statement you said that it was later confirmed, which you just mentioned was early 1998, that it would take much longer time to separate the system?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon CHOY So-yuk:

Therefore, you developed a contingency plan to use whiteboards and other contingency measures. So at that time when you were aware that it would take much longer time, you did not try to actually work on the main system to shorten the time to switch back to the standalone system. The reason you were not doing this - was it because you knew that it would be too late to do so, or it was impossible at that time to do it, or you decided to use whiteboard which would be a simpler way?

Manager - Terminal Systems, Airport Management Division, AA:

Especially early 1998, we started to get the message -- we started to know the opening date, a firm opening date. The focus was to make sure that they could deliver something. When they said that they could not do it in the other way, they wanted to concentrate on delivering a system which was a fully integrated system, we did not push them that they had to have a separate resource to work on a standalone system. That was not done. At least at my level, what we did

was that that was the decision and we would think of a way to work with it.

Hon CHOY So-yuk:

Miss CHEUNG, can you confirm to us that you actually voiced aloud that you hoped the system could be worked in such a way that the integrated system could be separated at a faster period, that something could be done, but, since EDS told you through your senior levels that they would not want to work on it because they wanted to push ahead with the integrated system, that was why you fall back onto this whiteboard contingency plan?

Manager - Terminal Systems, Airport Management Division, AA:

That was why we fall back to whiteboard? We worked on a contingency plan, yes.

Hon CHOY So-yuk:

Because there was no time?

Manager - Terminal Systems, Airport Management Division, AA:

Because there was no time, yes.

Hon CHOY So-yuk:

In your opinion, this time scheme which needed working on, at what time you were aware that it would take much longer time, at what month or what date you were aware of this fact that it could be, you would have time to work on the system?

Chairman:

I don't think Miss CHEUNG can answer that question. She can only answer you from a user's point of view. She is not managing the project. I think it is very difficult for her to answer that, to come up with a judgment as to at which point. 蔡素玉議員。

Hon CHOY So-yuk:

Can I ask another question. As an expert in computers, at the time when

you were told that the integrated system could be falling back into standalone mode, were you actually doubting whether it would be easily falling back into standalone mode? You didn't doubt, except for manpower problem?

Manager - Terminal Systems, Airport Management Division, AA:

I didn't doubt because, by the design, it looked like it could be separated, very possible. I mean the design they showed us is easy to separate.

Chairman:

The 2 to 3 weeks to revert, it was never mentioned at that stage. It only came to your attention in early 1998 that they needed 2 to 3 weeks?

Manager - Terminal Systems, Airport Management Division, AA:

Actually, I would think 2 to 3 weeks was quick. I didn't think that 2 to 3 weeks -- I would think it would take much longer. In early 1998 my impression was that it would take much longer than 2 to 3 weeks to fall back to standalone mode. Before 1998, my impression was that they needed to take time, within about 2 to 3 weeks, to switch back. Not within 1 or 2 days. They would need to do some work, but the work was a short period of time.

Chairman:

They should have done it before you mean?

Manager - Terminal Systems, Airport Management Division, AA:

They should have done it before. The way they designed it they should have, really like they say by Build. If it was by Build, then it was standalone already and then they integrated them together. Later on I found out that was not the case. There were some Builds on the bottom layer very tightly integrated with each Build and it was difficult to separate them.

Hon CHOY So-yuk:

Can I ask one final question? Miss CHEUNG, you mentioned that you know about this timeframe required to separate the system in early 98. How were you aware of this? Who informed you? Is there any document or any

meeting in which this was informed?

Manager - Terminal Systems, Airport Management Division, AA:

There was a document. I believe I saw a memo on this. I can dig it out and show it to you.

Hon CHOY So-yuk:

It was a memo sent to you?

Manager - Terminal Systems, Airport Management Division, AA:

Not sent to me. Sent to management, I believe.

Hon CHOY So-yuk:

From whom?

Manager - Terminal Systems, Airport Management Division, AA:

Can I go back and dig it up? I would be more sure then.

Chairman:

How did you become aware? By whom were you informed? If you could let us have that documentary --

Hon Edward HO Sing-tin:

Madam Chairman, stand-by FIDS.

Chairman:

You want to go to stand-by FIDS?

Hon Edward HO Sing-tin:

I know you were talking about standalone and all that. It is up to you.

Chairman:

We have finished with the standalone now. I think Margaret has a point to make?

Hon Margaret NG:

Yes. It is about the cancellation of FAT. Miss CHEUNG, I am going to ask you to look at something in Volume X. Have you got Volume X with you? That is the easiest bundle to refer to.

Manager - Terminal Systems, Airport Management Division, AA:

Can you give me a number?

Hon Margaret NG:

Volume X. Paragraph 30. Before you look at any document, you were aware that FAT was cancelled, the Factory Acceptance Test was cancelled, were you?

Manager - Terminal Systems, Airport Management Division, AA:

I was aware of that later on. I don't think that during the decision-making time we were aware of that.

Hon Margaret NG:

At some point you were aware of that?

Manager - Terminal Systems, Airport Management Division, AA:

Yes, at some point.

Hon Margaret NG:

If you turn to Paragraph 30, you will see the first page there is some e-mail things. If you go to the next page and then Page 3 you see your own memo to K C TSUI?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

This memo seems to be a response to a memo of K C TSUI's on FIDS SAT scenario test. In the third paragraph you express a view about FAT. The second sentence says:

"Hence, given that there is no FAT and hence step-by-step functional test against PTS is not performed, we have no way to ascertain if all functions are delivered as specified."

Did that express your view of FAT, the importance of a factory test?

Manager - Terminal Systems, Airport Management Division, AA:

It does, yes.

Hon Margaret NG:

I want you also then to keep this in mind but look at Paragraph 33. You see that that is a CSE report, an executive summary. If you go to the second sheet, do you see executive summary?

Manager - Terminal Systems, Airport Management Division, AA:

Yes, I have got it.

Hon Margaret NG:

If you turn to Page 2, at the bottom it says sheet 4 of 20. The second paragraph refers to the lack of a normal FAT test means that the Authority has forgone the usual opportunity to trap faults before delivery. Can you tell this Select Committee, from your area of expertise, what exactly does the FAT test mean to the whole reliability, or how reliable the system is? In particular, what

we would like to know is how it is different from a Pre-SAT test and whether the Pre-SAT test can take the place of FAT and, if so, to what extent it can do that?

Manager - Terminal Systems, Airport Management Division, AA:

In fact from the development point of view, or the contract was set up, the FAT test is something that the Authority have had someone over there to observe the test, both FAT and SAT. Even before FAT happened, that EDS or the software contractor should have done their own in-house test.

Hon Margaret NG:

The pre-FAT?

Manager - Terminal Systems, Airport Management Division, AA:

They had to do their own tests and they had to prove to themselves that the system is fully tested. Then we would send someone over there to do a check, which is the FAT, to observe the test. Then SAT the same thing. Once delivered on-site, the user has the chance to look at the system. The difference between FAT and SAT is that FAT actually has gone through -- if you look at the very thick PTS later on, there are thousands of detailed functions need to be implemented. FAT needs to go through each one of them to identify if there is any fault in there. One step might create fault for another. You need to go through in detail. SAT, once you go through that, where you have a Site Acceptance Test, not only do you have to check if the software can work with the component in the real site, also we start to create a scenario from the user point of view, like a real flight movement, so there is a sequence of steps that would go through into the system to see if it triggers faults. If we have SAT without FAT, meaning that each breakdown of the function was not tested, it is going to be very difficult to test a scenario, a sequence of steps. In fact that is what happened in the SAT.

Hon Margaret NG:

Pausing there. Just to help us understand. Is it right that if you didn't have the FAT and then you go on straight to the SAT, then if something goes wrong in the SAT you wouldn't know exactly what has gone wrong?

Manager - Terminal Systems, Airport Management Division, AA:

That is part of it, right.

Hon Margaret NG:

Please carry on?

Manager - Terminal Systems, Airport Management Division, AA:

In fact that is what happened in the SAT. Many times we had to stop because it could not carry on, one of the steps had a fault, and then we abandoned that and became a PR, a problem report. Then we went on to the next scenario. In fact when I wrote this memo it was because there was a meeting talking about SAT and I had great concern at the meeting and I raised my concerns in the meeting.

After that meeting, K C TSUI, I believe that he wrote me a memo, however, I couldn't find that memo now. He wrote me a memo about that there was an agreement on the SAT already. In the meeting my concern was that "OK, now we don't have FAT and we cannot fall back now but I would like to add quite a lot of FAT steps into the SAT because if the SAT failed then I want to add some steps in there". He has great concern on the timing of course. From his point of view, he has to control. The user has a lot of requirements and he has to see if they can be entertained. I was asking to add a lot of FAT steps into it.

Hon Margaret NG:

Was it a satisfactory way of dealing with it, to add FAT steps at the stage of SAT?

Manager - Terminal Systems, Airport Management Division, AA:

At least I myself can be sure to take a look if those functional tests -- if it is not done in the UK, at least I myself can take a look.

Chairman:

Would you call that the best of a bad situation? Because you were presented with this, it didn't look as though you could change it, so you were trying to do the best you can to remedy whatever was placed in front of you?

Manager - Terminal Systems, Airport Management Division, AA:

That is correct, yes.

Hon Margaret NG:

Presumably, when you added FAT steps at the SAT stage that took time?

Manager - Terminal Systems, Airport Management Division, AA:

That would take time of course. That would prolong the test programme.

Hon Margaret NG:

In terms of the time you had to add on, what sort of time was it? How much time did you have to add on because of this? Just give us a rough idea?

Manager - Terminal Systems, Airport Management Division, AA:

From a user's point of view, we would like to test as much as possible until the system is proved to have no fault. In software development, testing can be long until you reach a satisfactory level.

Hon Margaret NG:

Let me tell you why I ask this. You know that FAT was cancelled because of shortness of time. In the end, because of what happened at the SAT stage, you wanted to add on FAT tests?

Manager - Terminal Systems, Airport Management Division, AA:

No, that's not the end. I think that is just at the beginning.

Hon Margaret NG:

Not at the end of the SAT. Sorry about my English. SAT was cancelled because of shortage of time. You went to SAT but when you were doing SAT

you found that you had to stop all the time. Then you wanted FAT steps to be added on at that stage?

Manager - Terminal Systems, Airport Management Division, AA:

No, I think this memo or the discussion was before SAT had even started. We just had an agreement on all the scenarios. When we looked at that scenario, I thought the scenario was enough. However, I would like to add more FAT steps into it. Then K C's concern was that we have already agreed that there would be only SAT. However, he replied that if there was more time at the end of SAT we could have added something, we could add something to it.

Hon Margaret NG:

Did you in the end manage to add something?

Manager - Terminal Systems, Airport Management Division, AA:

Not really. We didn't really have time.

Hon Margaret NG:

May I just complete by asking one further question. We have been told in this Committee that removing FAT was bad but the situation was to some extent salvaged by having Pre-SAT. Can you comment on that? To what extent did the Pre-SAT compensate for the lack of FAT?

Manager - Terminal Systems, Airport Management Division, AA:

It might compensate a bit. More tests are always good. Pre-SAT does pre-identify some of the problems before it comes to site. However, I don't think that's enough. FAT should be a thorough line by line test.

Hon Margaret NG:

Why shouldn't it be enough? Can you describe in greater detail because we are non-technical people?

Chairman:

We are not talking about the principle. We are talking about the actual situation at that time when K C told you that we don't have the luxury of time to do FAT but we do have a Pre-SAT before SAT so that should compensate for FAT, although it is not quite the real thing. Did you find that that actually compensated?

Manager - Terminal Systems, Airport Management Division, AA:

In fact I worked quite close with Rita also, so she did manage to do some FAT tests in the Pre-SAT. A Pre-SAT in fact just takes the scenario of going through testing the SAT, going through the same scenario in the Pre-SAT. I still want to have some of the FAT tests done. That was carried out a bit but I don't think that fully compensates. It compensates a bit but it doesn't fully compensate.

主席：

單仲偕議員，請作簡短的詢問。

Hon SIN Chung-kai:

May I supplement the questions? Do you encounter many bug fixings during the Pre-SAT and SAT which should have been discovered in FAT?

Manager - Terminal Systems, Airport Management Division, AA:

Correct. To our surprise, in doing the SAT a lot of very basic problems that could have been identified easily in the FAT or Pre-SAT were still present in the SAT. For example, if you play with PC, you open one window and it will pop up an error message or you cannot move from one spot to another. They are very basic errors. But those still pop up in SAT.

Hon SIN Chung-kai:

During the Pre-SAT and the SAT you do encounter a lot of basic errors and bug fixing errors?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon Edward HO Sing-tin:

Chairman, on the Pre-SAT, Rita LEE went to the UK, went to witness the Pre-SAT, and then she had an e-mail back to Yvonne MA. This is the same paragraph. On Page 1 down the bottom, Paragraph 4, she said that:

"Owing to the limitation of the host server set-up and the network configuration in Hook, tests like host server failover, display server fail over and stress tests were not included in Pre-SAT."

She said some other things on the next page, that the volume of minor PRs was also alarming, and so on and so forth. As a computer professional yourself, can you explain to us what was the meaning of this limitation of host server set-up, in the general sense? We were told by Mr CHATTERJEE yesterday that even with the FAT these tests wouldn't have been possible? It was only when Rita LEE went there she discovered that these were the limitations, not just for Pre-SAT but even for FAT there were still these limitations, would you say that is correct?

Manager - Terminal Systems, Airport Management Division, AA:

It is correct. The set-up in Hook was quite limited. This was something of course I didn't accept as the reality that we should take. It should have more servers being set up over there. However, the situation at the time over there was that they had only limited facilities as compared to what we had in our terminal building. Certain things could not be carried out over there. However, I believe this kind of development also happens at other airports or other large facilities.

Chairman:

Never mind about other airports.

Hon Edward HO Sing-tin:

I think the question I really want to ask is that we abandoned FAT because of time, right, because of delays and so on?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Edward HO Sing-tin:

If there were no such delays, if there were time, and FAT would then have been carried out in Hook. Would you say that given this knowledge they still couldn't perform FAT? Of course you would have known it earlier?

Manager - Terminal Systems, Airport Management Division, AA:

There were quite a lot they could perform, including as I said that they went through line by line and functional test. Things like what Rita has specified here did have some limitation. However, what they had to do was, for example, buy two host servers instead of having just one host server to do these tests, failover. They had to purchase more equipment there in order to do this FAT. However, I do reckon that Rita was right. For some of the things they did not have the sophistication as we had in the PTB, but the majority of things certainly could be tested out.

Chairman:

But surely FAT was part of the contract?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

They should have been able to do all that, I hope?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Chairman:

The fact that they didn't, it was already in fact failing to a certain extent what they were supposed to do in the contract?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Chairman:

So it wasn't really the excuse which would be acceptable to cancel FAT?

Manager - Terminal Systems, Airport Management Division, AA:

I agree.

Hon Margaret NG:

Madam Chairman, of course we are told that EDS itself did not agree to abandon FAT. Forgive me if I sound awfully ignorant, but why, when you have no time for FAT, you do a Pre-SAT instead of doing part of a FAT? What is the difference between a Pre-SAT carried out in Hook as a shortened form of FAT?

Manager - Terminal Systems, Airport Management Division, AA:

In fact in the original programme there was a Pre-SAT. Pre-SAT was always in the original programme. They have to verify themselves before they really come to the site. I don't think that is a total replacement.

Chairman:

They cancelled the FAT and they did a partial Pre-SAT? This is what Rita LEE said.

Manager - Terminal Systems, Airport Management Division, AA:

They did a Pre-SAT, yes.

Chairman:

They cancelled that and they did a partial Pre-SAT.

Manager - Terminal Systems, Airport Management Division, AA:

They did a Pre-SAT but I believe they also added some FAT into the Pre-SAT, some of the FAT steps. FAT could be quite extensive. Because we are talking about many, many steps, it can take a very long time.

Hon Margaret NG:

This witness, Madam Chairman, knows exactly what the different steps are, what is required to be tested and what tests were in effect carried out at the time? You may not be able to remember clearly now but at that time you did know, is that right?

Manager - Terminal Systems, Airport Management Division, AA:

At that time I needed to, from time to time, refer back to the contract and recently because of all these hearings I do go back to the contract and take a look again.

Hon Margaret NG:

I am very thankful, Madam Chairman, that this is the case. Miss CHEUNG told us that some FAT steps had to be done in the Pre-SAT, as it turned out. Remembering what you have looked at, what is the percentage of those FAT steps done as compared to the full FAT?

Manager - Terminal Systems, Airport Management Division, AA:

I really couldn't say. I could probably go back and see if there is any material I can put together, but really now I can't comment.

Chairman:

What are you trying to establish?

Hon Margaret NG:

I am trying to establish to what extent?

Chairman:

This is a question we should put to K C TSUI in writing because he is the person responsible for that part. He is the Project Manager. I think although Miss CHEUNG is knowledgeable on that, strictly speaking as a user she is not the person responsible for that.

Hon Margaret NG:

I accept that.

Chairman:

We will do it by writing.

Hon Margaret NG:

Could I just direct Miss CHEUNG's attention to the additional material Mr CHATTERJEE gave us today. These documents were given in response to our request for documents showing that the Pre-SAT somehow mitigated the FAT. Could we ask Miss CHEUNG to look at it.

Chairman:

Where is it?

Hon Margaret NG:

It is now in Volume XI.

Chairman:

Which particular?

Hon Margaret NG:

In fact I don't know. I have been looking at these things but I have no idea which is supposed to do it, you see. It starts with Paper no. 289, that is, the letter.

Chairman:

Paper no. B290, if Miss CHEUNG can look at it, that is the Pre-SAT test schedule?

Hon Margaret NG:

Yes, Madam Chairman, it is a matter for you whether you want Miss CHEUNG to look at them now or later. If she can take a quick glance through Paper nos. B291, B292, B293 or any of these documents to tell us which would be most helpful in deciding those questions?

Chairman:

I think we will leave that question. She can come back in writing to respond to that. Can you, just for Miss CHEUNG, phrase your question exactly what she needs to do?

Hon Margaret NG:

Yes. Miss CHEUNG, do you think you can look at the documents now in Volume XI. Look at Paper no. B290 and tell us whether this would help us to decide how far the Pre-SAT mitigated the fact that FAT was not carried out?

Chairman:

You can come back in writing.

Hon Margaret NG:

I may not have directed you to the right document. I would ask you to look at the various documents from Paper no. B291 to B299 to see which would be most helpful to you.

Chairman:

These are the test schedules. If you would look at them and then consider the question which Miss Margaret NG has put to you and respond to us in writing please.

Manager - Terminal Systems, Airport Management Division, AA:

Sure.

主席：

李永達議員。

Hon LEE Wing-tat:

Ms CHEUNG answered a question from Miss Margaret NG that FAT which is cancelled cannot be replaced by the Pre-SAT exercise, is it?

Manager - Terminal Systems, Airport Management Division, AA:

That is my opinion.

Hon LEE Wing-tat:

In your opinion will the cancellation of FAT actually lead to some kind of lowering the quality or standards of the system that the airport will use later?

Manager - Terminal Systems, Airport Management Division, AA:

If the quality of the developer is good -- there are some cases that the quality of the developer are very good and when they write the software they are writing in a very good disciplined way, then the end result may not be. You may still have very good quality software. But still you will not know until you test the system, you know, the quality. I couldn't make that assumption, OK.

Hon LEE Wing-tat:

Can you say that the decision to cancel FAT would lead to a possibility of some kind of risk that if you still don't have time, you don't have what you call a disciplined testing procedure, then at the end of the day when you use the system it has the possibility that its quality is not up to the standard that you require?

Chairman:

You mean the risk?

Manager - Terminal Systems, Airport Management Division, AA:

Again, that might not be a quality issue. It might be a risk of confidence, that once you go through all these tests your confidence level --

Hon LEE Wing-tat:

All the members within your Department, starting from the middle management to the top management were aware of this kind of risk possibility?

Manager - Terminal Systems, Airport Management Division, AA:

I believe so. I have talked to K S and I believe --

Hon LEE Wing-tat:

You have talked to K S about this?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon LEE Wing-tat:

Did the department have a meeting to formally discuss these kinds of things and assess the risk possibility and convince yourself that even under that kind of circumstances and time constraint you could still accept the cancellation of FAT?

Manager - Terminal Systems, Airport Management Division, AA:

At the time the decision was already made and we were taking steps to work around it.

Hon LEE Wing-tat:

So it was not under your authority that you could convene this kind of meeting, convey the message to the Head of the Department, and then convey this

message back to another Department to reconsider the decision?

Manager - Terminal Systems, Airport Management Division, AA:

From hindsight, if I stand up and shout and fight very, very hard, it probably would raise certain concerns. However, what I would say is that at that time, really, the decision had already been made and I was focusing on looking for a way to go around it.

Hon LEE Wing-tat:

On the risk side, at that moment had the staff within your Department quantified or made a figure? You said to me there was no assessment actually at that time about the risk level?

Manager - Terminal Systems, Airport Management Division, AA:

I believe that CSE had done assessment at the time. I don't remember exactly when, but I did see the report. Perhaps it was the report you showed me, some assessment done by CSE.

Hon LEE Wing-tat:

Within your Department you don't have that kind of assessment?

Manager - Terminal Systems, Airport Management Division, AA:

No.

Chairman:

Miss CHEUNG, we now move to the period after the cancellation of FAT and then you started doing Pre-SAT. We saw what Rita LEE said. Then you started doing SAT. Then you started doing Pre-SAT as you moved along. We were actually told by other witnesses that as you progressed the stability of the system improved and it gave you more comfort, it actually assured you that maybe things were not really as bad as you first imagined it to be. I want to ask you, personally, when you were following this series of tests were you more confident, did confidence grow as you moved along, or were you thinking "Wow, I have guessed right. This is really as bad as I thought" or "This actually turns

out worse than I thought"? Which one was it?

Manager - Terminal Systems, Airport Management Division, AA:

No, it was not worse than I thought. There was progress. Progress was better than I thought, I would say, because if you are looking back at the records on the first trial and the second trial the system actually failed and we were very worried and concerned. There were all sorts of fall-back plans coming out. But then on the third one and the fourth one, the system started to perform. Of course there were quite a lot of glitches and problems here and there but it didn't crash during the entire trial. My confidence level raised and I had good hope, but again we knew that we would face difficulty or we would face problems so we started to look for those other workarounds again to see if we were to face those problems how could we deal with them. At the time I didn't think that we would have a perfect system, of course.

Chairman:

Can we move on to the last phase of the development just prior to AOD. Mr SIN Chung-kai.

Hon SIN Chung-kai:

May I refer to your letter to K C TSUI and that is Paper no. B225-15.

Chairman:

Attachment 15.

Hon SIN Chung-kai:

Yes. This is a letter from yourself to K C TSUI written on 6 June. Sorry -- 14. You did mention, a table mentioning 38 problems and highlighting some of the defects after the final phase of testings. Also, I want to draw your attention to the next memo, 15, which Kiron CHATTERJEE wrote back to you and some other members of EDS on 18 June, that is a couple of days later, and it was agreed that from a FIDS operation perspective there were no outstanding show-stopper items preventing AA from using FIDS from AOD. Item 37 remains very important from a gate allocation perspective. You did highlight 38 problems and Kiron CHATTERJEE said it was agreed. I don't know who

agreed this. Do you agree that it was agreed?

Manager - Terminal Systems, Airport Management Division, AA:

My understanding in the meeting was that those action items identified should be properly taken care of and EDS also agreed to take care of those actions and, with that understanding, there were no show-stoppers. We were expecting that EDS would not bring out this concern and say that it didn't matter, it didn't need to be fixed. However in the meeting some of the fixes had been carried out and some of the fixes or workarounds were committed by EDS. It was understood at the meeting that the action items would be properly taken care of.

Hon SIN Chung-kai:

So you did agree that if these 38 items were properly handled then there would be no show-stoppers?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon SIN Chung-kai:

After 8 June, from 18 June to AOD, who would be responsible for checking these 38 items?

Manager - Terminal Systems, Airport Management Division, AA:

We were checking them. For example, the most concerned one, if I can prioritise this by the one that concerned me most as the first one, was slow response. Then we pushed EDS to do some work on it and they did do some work on 10 June to upgrade the system and, after the last trial, which was the full-scale trial, they did some other upgrading again, I think around 2 July, upgraded another CPU into it. In my mind, they had been taking proper action. I believe their expertise -- also IT was having a close monitoring of them. Other items, if they were not fixed, then EDS would commit to do some workarounds. There was quite close monitoring on these 38 items.

Hon SIN Chung-kai:

Correct me if I am wrong, Product Division did hand over the FIDS or the Project --

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Hon SIN Chung-kai:

-- to AMD on 23 or 25 June, am I right?

Manager - Terminal Systems, Airport Management Division, AA:

Hand over on the 23rd? In fact handover means that now it is going to the system itself. I don't think it is a project management handover to AMD/IT, although administration of the system is handed over to AMD/IT. Before that, EDS owned the system. They can do anything with the system; they can bring down, bring up, install something new into the system. Once they hand over to AMD/IT, they have to go through this process when they want to turn off the system, when they want to insert another CPU, they have to get approval first, and that is the meaning of handover.

Hon SIN Chung-kai:

That doesn't mean that you accepted?

Manager - Terminal Systems, Airport Management Division, AA:

No. Even today we have not accepted.

Chairman:

No assurance of quality, no assurance of performance with that handover?

Manager - Terminal Systems, Airport Management Division, AA:

There are still quite a lot of outstanding works.

Chairman:

It is just a change in administrative arrangements?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon SIN Chung-kai:

One final question that is very simple. Do you anticipate the problems occurred on 6 June. For example, you did keep a lot of logs which show a lot of problems. Did you anticipate these problems?

Manager - Terminal Systems, Airport Management Division, AA:

I did not anticipate the degree of the problem. We did anticipate there would be problems and we tried to have --

Hon SIN Chung-kai:

You did anticipate some problems?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon SIN Chung-kai:

Can you paint a picture for us of what kind of problems you anticipate?

Manager - Terminal Systems, Airport Management Division, AA:

For example, we had known before the AOD that some monitors were not fixed. You could see some blank monitors out there. We knew several PR, problem reports, were not fixed, which we thought they were minor and we had workarounds for it. We knew that it would not be an easy operation, of course, because there was still quite a lot of PR, problem reports, on this system. However, all those problems that I had anticipated, we tried to find a way. I did

the impacts on those problems and saw how they impact on us. For the important ones we tried to find ways to work around. If there were no workarounds, then I asked Project to address those.

Hon SIN Chung-kai:

How about the slow response?

Manager - Terminal Systems, Airport Management Division, AA:

Slow response was always the most concern of mine.

Hon SIN Chung-kai:

Did you anticipate the slow response?

Manager - Terminal Systems, Airport Management Division, AA:

Not to that degree. Especially, since after that they had upgraded the system twice I did not think the system would go into that degree of --

Chairman:

You were actually taken by surprise not so much by the nature of the problems but the degree?

Manager - Terminal Systems, Airport Management Division, AA:

The degree, yes.

Chairman:

Of severity?

Manager - Terminal Systems, Airport Management Division, AA:

The severity, yes.

主席：

李永達議員。

Hon LEE Wing-tat:

Miss CHEUNG, you have the table of 38 items on 6 June and then you have a meeting with Kiron CHATTERJEE on 18 June?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon LEE Wing-tat:

Can I ask why you didn't wait for the retesting of the problems? Because you had 38 problems that needed some kind of fixing and then you tested it. I see at the Appendix of Paper no. B225-15, actually some of the fixes are complete, some of them are not complete, and some are fixed but not tested?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon LEE Wing-tat:

Why at that meeting were you so confident? Some of them actually were not fixed. Some were fixed but not tested. Without this kind of very careful procedure, why did you have the confidence that there would be no show-stopper?

Manager - Terminal Systems, Airport Management Division, AA:

As I explained in the meeting, EDS had full commitment and it was agreed that if those actions had been taken care of there would be no show-stopper. It was not in my mind that if EDS had not done anything then there would be no show-stopper. We definitely had to evaluate what EDS had done.

Chairman:

So it was subject to fixing of those?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

Was that never ascertained, that all those 38 promises were kept?

Manager - Terminal Systems, Airport Management Division, AA:

I do believe that EDS carried out their commitment. Item by item they did do something.

Chairman:

They did do something but whether the result was actually the one they promised --

Hon LEE Wing-tat:

Chairman, I note all the actions in the column there, the action dates and the EDS status update. For each item they did something. For some, they did something but incomplete. Some they did something but could not fix them. Some were fixed but not tested. Even though EDS had a commitment to you or in the meeting that they were going to do these things, in view of the past history why at that meeting did you have that kind of confidence? Because you knew pretty well in the past 2 years, 96 and 97, they were always committing but could not deliver, especially when they delivered the Builds and also other systems?

Manager - Terminal Systems, Airport Management Division, AA:

This table, which I wrote to K C did raise a concern. Right after I sent the memo to K C, on 9 June there was a meeting. 9 June was a meeting that many people came, including GEC's Project Manager, Bill HIRST, and EDS' Project Representative, Mike, Gordon CUMMING. There were quite a lot of people in that meeting and we went through item by item. You can see their response. This time response was quite fast and they had the same concern and their commitment in the meeting was high. Given the time, we had at the time pushed them quite hard and they fully committed. Subsequently, we had another meeting to review what they had done and they had done quite a lot. Of course certain things had not been completed. Again, at the meeting they assured they

would complete those things and, subject to all those things being carried out, we had no other concerns.

Hon LEE Wing-tat:

But can you tell this Committee whether any members of the meeting actually suggested any dates for reassessing this kind of commitment by EDS? I know it was very near the AOD. But did any member of the meeting suggest that "Yes, they have this commitment but it is not so sure. Can we have a meeting 1 week later to assess"?

Chairman:

Has the step been taken?

Manager - Terminal Systems, Airport Management Division, AA:

There was not another meeting.

Chairman:

There was no step planned to ascertain that all those things which they promised to do, first of all, would be done and, secondly, would have achieved the results that you wanted them to achieve? No such step?

Manager - Terminal Systems, Airport Management Division, AA:

No such meeting set to come back and review these things again. However, at working level each item was closely monitored at the working level, working with them to ensure that this step was taken care of.

Chairman:

What about the intended results? I think Mr LEE's question was: Was there an assessment to make sure that the steps that they took achieved the intended results?

Manager - Terminal Systems, Airport Management Division, AA:

I believe so, yes. For example, the very slow response time. After they upgraded twice, IT did do some tests against it. Every time it was the same thing with PR fixing, all the problem reports fixed, once they delivered we had steps to verify what they said was correct. For each item we did have that step to verify them. If you are asking if there was a meeting and then overall let's take a look to see if all the items had been achieved, no.

Hon Margaret NG:

Miss CHEUNG, perhaps you can help us. Your Attachment 14, your memo to K C TSUI with a list of outstanding problems, that was dated 6 June, right? Obviously, that is before the final trial, the fifth trial, on 14 June, right?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon Margaret NG:

If you would look at Volume XI, you will find a list of problems, outstanding problems following the trial on 14 June. Can you get Volume XI and look at Paper no. B258. If you start from the back of the document there are 2 sheets of very closely typed tables. If you go to the first page of these tables, the first item is 12.50 pm, do you see that?

Chairman:

That is Page 3.

Hon Margaret NG:

I don't know why it is Page 3 but it is Page 3. Madam Chairman, it doesn't quite matter. What I want you to identify is that these are the FIDS problems identified on 14 June, is that right?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

If you go to the right-hand side column you find some fixed and some outstanding reported to EDS, right?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Hon Margaret NG:

So there are certain outstanding problems, as far as this document is concerned?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon Margaret NG:

Has this any relationship to the 38 outstanding problems in your Attachment 15 that various of my colleagues have taken you to?

Manager - Terminal Systems, Airport Management Division, AA:

First I have to verify. This document was checked on 6 July. I believe that was what happened on that day and they noted down that it was outstanding. This one, very slow response time --

Hon Margaret NG:

So it is not 14 June?

Chairman:

The fifth trial is 14 June?

Manager - Terminal Systems, Airport Management Division, AA:

It is, yes.

Hon Margaret NG:

It is 14 June?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

So this is a later stage than the 38 outstanding problems covered by CHATTERJEE'S memo?

Manager - Terminal Systems, Airport Management Division, AA:

Are you talking about the last item?

Chairman:

I think Miss NG's question is: You have a fifth trial on 14 June. You have your outstanding list which was made out on 6 June. Was that put against this list which happened on the 14th?

Manager - Terminal Systems, Airport Management Division, AA:

Of course in the trial we also tried to verify those problems again, problem fixed again.

Hon Margaret NG:

If you look at this, it seems that on 14 June, for example, if you go down Page 3, 1.17 pm, "FIDS very slow response time at FIDS operators workstations". That seems to be exactly the same thing you have been very worried about?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon Margaret NG:

On 18 June, why do you say that you agree there were no show-stoppers?

Manager - Terminal Systems, Airport Management Division, AA:

Again, let me explain to you about this report. Actually I did this report so I know. I mean the last column, the last column, when we did a check, what we were trying to reflect was what happened before AOD. Here this column, when I did that this was already AOD, some of them were already AOD, and this was reflecting that the system was still having problems and what we observed on AOD. I think this is a misunderstanding that you are getting at, thinking that before AOD we already knew there was a performance problem --

Chairman:

Sorry. Please clarify. You mean to say you filled in the last column after AOD?

Manager - Terminal Systems, Airport Management Division, AA:

No. We did some checks before AOD but some of the things we could not check until the real operational time. When we did a report on what happened, the system status, this is against the knowledge of what we saw during that timeframe, meaning that when we used the system what happened. Some of the problems were fixed. Some of the problems were still outstanding. At the time I did this report, it appeared to me that the very slow response time was still there. So that's why I put it outstanding.

Chairman:

You did check and you found out that in fact the problem still remained. Is it 5 or 6 July, the last column?

Manager - Terminal Systems, Airport Management Division, AA:

The column, on the title, you can see is 5 July. Some of the items filled in by myself was giving a status on what happened at that timeframe and this one was

about AOD.

Chairman:

In other words, what Miss Margaret NG just quoted, say 10:21 hours, for example, on Page 1, very slow response time, so on and so forth, that means the problem was still outstanding. They didn't fix the slow response time?

Manager - Terminal Systems, Airport Management Division, AA:

That is what we found out later on.

Chairman:

Afterwards?

Manager - Terminal Systems, Airport Management Division, AA:

When you say that they didn't fix or not, we believed that they did something and they told us they had fixed it. Performance, by adding one CPU, two CPU or how many is enough, I could not comment on that. However, the reply from EDS and the test somewhere around 2 and 3 July showed that they had done something and the performance was acceptable.

Hon Margaret NG:

Madam Chairman, I am thoroughly confused. Looking at your statement, Miss CHEUNG, at paper no. B225-14?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

That is the list of problems following the fourth trial, right?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

That I recall is sometime on 2 May, I believe, is that right?

Manager - Terminal Systems, Airport Management Division, AA:

My statement?

Hon Margaret NG:

Yes. Your statement, Attachment 14, your memo to K C TSUI?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

These problems are problems discovered in the fourth trial?

Manager - Terminal Systems, Airport Management Division, AA:

These problems did not only appear in the fourth trial. I think it was a longer time.

Hon Margaret NG:

After this list, you had the trial on 14 June?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

Then you discover a list of problems relating to FIDS?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

I believe you must have written it out in a log?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Hon Margaret NG:

The list I have just asked you to look at in Volume XI, Paper no. B258, that list, is this the list of problems on 14 June?

Manager - Terminal Systems, Airport Management Division, AA:

Yes. There are the problems on 14 June, right.

Hon Margaret NG:

Looking at this list, there are lots of things, including very slow response time, that were not fixed?

Manager - Terminal Systems, Airport Management Division, AA:

Yes. That is why they took another action on 2 July to upgrade the system again.

Hon Margaret NG:

Never mind 2 July for the time being. Following 14 June you still have, say, slow response time. Then looking at your statement, Attachment 15, the memo of 18 June of CHATTERJEE?

Chairman:

Miss CHEUNG told the Committee that she agreed to that note of Mr CHATTERJEE, subject to the action that was to be taken after the 17th?

Manager - Terminal Systems, Airport Management Division, AA:

Correct, yes.

Hon Margaret NG:

However, if you look at the big table attached to Mr CHATTERJEE's memo, these outstanding things, were they from the previous test or were they from the test on 14 June?

Manager - Terminal Systems, Airport Management Division, AA:

This outstanding test? I am sorry.

Chairman:

Outstanding list of things in Mr CHATTERJEE's list?

Manager - Terminal Systems, Airport Management Division, AA:

This is not just from the trial. This is from experience using the system, because we have been using the system for training trial, hands-on practice. This is identified in a longer period of time. It is not just from the trial.

Chairman:

It was the list that stood on 6 June.

Manager - Terminal Systems, Airport Management Division, AA:

I brought it up, I put it together and bring it out on 6 June.

Hon Margaret NG:

You are saying that the list does contain very worrying things but, subject to your confidence it was going to be fixed, then you believed there was no problem?

Manager - Terminal Systems, Airport Management Division, AA:

Correct. There was no other problem because in the meeting we were trying to ask any other things, or once it was fixed it would be OK?

Hon Margaret NG:

You see, Madam Chairman, we get the impression that the idea is that you didn't believe that this list contained anything which was a show-stopper and that rather astonished us?

Manager - Terminal Systems, Airport Management Division, AA:

I don't understand. Say that again.

Chairman:

We were under the impression that both you and Rita LEE, who sat with Kiron CHATTERJEE, agreed that the 38 things which were listed in that list, after your meeting you agreed there were no show-stoppers. Now you are telling us that there were no show-stoppers, subject to the fact that they would fix everything, and that process was not ascertained, or not in a co-ordinated manner anyway. You might have bits here and there but there was no co-ordinated effort to sit together and say "Item 1 fixed, item 2 fixed, item 3 fixed".

As far as that statement on 18 June was concerned, it should have been taken as wishful thinking in a way because you were just hoping that everything would be fixed after that meeting and, if they were fixed satisfactorily, then there were no show-stoppers? Wouldn't that be a fair comment?

Manager - Terminal Systems, Airport Management Division, AA:

We saw EDS have a high commitment there. That was the risk we took.

Hon Margaret NG:

Madam Chairman, can I ask that here is recorded "very slow response time" and one of the problems on AOD was also very slow response time. How bad

was it? Was AOD as bad as what was listed in your list of problems?

Manager - Terminal Systems, Airport Management Division, AA:

We had never experienced that, AOD, the response time.

Hon Margaret NG:

Worse than anything that you had?

Manager - Terminal Systems, Airport Management Division, AA:

Well, you saw the log. Even over here when I say "very slow response time" it took several minutes. But an AOD some of the allocations took 25 minutes. It was a different situation.

Chairman:

Can you just clarify something for me regarding those lists. You sent a memo to Mr TSUI on 6 June. There was no response to that?

Manager - Terminal Systems, Airport Management Division, AA:

He did, because he then organised this meeting on 9 June, whether he asked his Project management representatives --

Chairman:

There was no documentary evidence to us anyway that he took any action?

Manager - Terminal Systems, Airport Management Division, AA:

Right over here. Paper no. B225-15, Kiron's memo, Kiron's attachment.

Chairman:

I thought that one was the 17th meeting?

Manager - Terminal Systems, Airport Management Division, AA:

No. If you read the top few lines, it is the minutes updated to record the latest status, 17 June, and that was the meeting. Following that, you will see AA/C381, FIDS major outstanding PRs.

Chairman:

That was a 9 June meeting?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Chairman:

I want to ask: There was another message that K S NG sent to K C TSUI on 11 June with the same list, 38 items. Why was it necessary for him to send that?

Manager - Terminal Systems, Airport Management Division, AA:

I discussed with K S and K S also had concerns. He just wanted to put a strong view on it to make sure that something happened.

Chairman:

We see all these lines going all at the same time. Miss Emily LAU.

Hon Emily LAU Wai-hing:

I want to ask Miss CHEUNG, because just then she referred to the high level of commitment by EDS and in the memo we referred to earlier that you wrote in April 97 you had less than 50 per cent degree of confidence in EDS, what was your level of confidence in EDS at that time, in June 98?

Manager - Terminal Systems, Airport Management Division, AA:

June 98. At the later stage they started to move quite a lot of people to the site.

Hon Emily LAU Wai-hing:

I know. I am just asking you has your degree of confidence risen very sharply?

Manager - Terminal Systems, Airport Management Division, AA:

To their support, confidence was much higher. However, to the system, I still had my observation on the performance. However the support from EDS was much, much higher. So, the confidence on their support, yes, meaning that if the system had a problem they were committed to fix it, that confidence was much higher because they did move quite a lot of people in.

Hon Emily LAU Wai-hing:

How high?

Manager - Terminal Systems, Airport Management Division, AA:

How high? In many cases they were able to jump into a situation and fix the problem for us. Reviewing their response, that confidence was high, you want me to give you a percentage?

Hon Emily LAU Wai-hing:

Because you gave 50. That is why I asked you now?

Manager - Terminal Systems, Airport Management Division, AA:

The 50 was not -- I think again it was a different thing. 50 was against their development, the confidence in their development. For this you are talking about their support or commitment to support to make sure that they fix the problem, and the confidence, I think that was about 90 per cent I would say.

Hon Emily LAU Wai-hing:

90 per cent in June of 98?

Chairman:

No. The commitment to fix.

Hon Emily LAU Wai-hing:

I am talking about the confidence.

Miss Vivian CHEUNG:

The confidence of the systems or confidence of EDS?

Hon Emily LAU Wai-hing:

Their ability to deliver? That the whole thing would work for you on AOD?

Chairman:

Your overall level of confidence?

Manager - Terminal Systems, Airport Management Division, AA:

Confidence depends on what we are trying to assess. If you talk about 100 per cent of the system working, no, I always know that before AOD we would not have 100 per cent of the system working. Confidence on whether we have a workable system, yes, I do have at that time. Do we think that we have a workable system, I would still think that was about 90 per cent or 90-something per cent.

Hon Emily LAU Wai-hing:

Now do you find that your confidence has been misplaced?

Manager - Terminal Systems, Airport Management Division, AA:

Yes. I mean the first day was a shock to all of us.

Dr Hon Raymond HO Chung-tai:

I would like to have a couple of points clarified by Miss CHEUNG, since you are a professional in IT. In your statement, Paragraph 25 Page 13, it mentions about this term "systems down". I would like you to tell us how you would define "systems down"?

Manager - Terminal Systems, Airport Management Division, AA:

During the training and hands-on, if we could not use the systems then we said the system was down. It could be a network problem, it could be a server problem, it could be application which had some bugs that it didn't work. As long as my operator sitting in front of the workstation could not use that software, we said the system was down.

Dr Hon Raymond HO Chung-tai:

What sort of level of non-availability of the system? What sort of level? What sort of degree?

Manager - Terminal Systems, Airport Management Division, AA:

Do you mean at that time?

Dr Hon Raymond HO Chung-tai:

How do you define the system being down?

Manager - Terminal Systems, Airport Management Division, AA:

As long as you cannot use it, then the system is down. Meaning that they cannot do what they want to do. You cannot start up the application. You go to the workstation --

Dr Hon Raymond HO Chung-tai:

For instance, some monitors are not working, some LCDs are blank, information is incorrect?

Manager - Terminal Systems, Airport Management Division, AA:

I understand what you are saying. That is not down. We do have those problems constantly, even now, like maintenance, you will have 1 or 2 monitors gone down and you need maintenance work. Not referring to those. It is referring to the situation when operators cannot operate on the system.

Dr Hon Raymond HO Chung-tai:

So on AOD you would not describe the situation at that time as the system being down? You would not?

Manager - Terminal Systems, Airport Management Division, AA:

I would not. It was not down. It was slow.

Dr Hon Raymond HO Chung-tai:

There is a second point I would like to clarify. You realise that the FIDS system has got 2 computers?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Dr Hon Raymond HO Chung-tai:

One is the primary and the other one is the hot stand-by?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Dr Hon Raymond HO Chung-tai:

Do you know why the hot stand-by was not activated automatically or not forced upon manually, because it could be done either way?

Manager - Terminal Systems, Airport Management Division, AA:

On AOD?

Chairman:

On AOD.

Manager - Terminal Systems, Airport Management Division, AA:

Hot stand-by means the system is down, or the main system has crashed, or has some problem. If it is crashed, it will automatically switch over to the other computer. Or you can manually switch over if the main system has problems. Hot stand-by could not back up an application problem. Hot stand-by means that you have perhaps the system or the hardware failed and it will switch over. But still there is a degree of things that you can back up.

Dr Hon Raymond HO Chung-tai:

You think that the situation on the AOD was really due to application problems, that is, due to operators using certain appliances, certain equipment not correctly? You think that was the case?

Manager - Terminal Systems, Airport Management Division, AA:

No, application problem means that -- On AOD actually what happened, after all this investigation, what happened was that the Oracle, which is a database, it might not be at application level, the Oracle itself was going slow and had some deadlock problem. When the Oracle had a deadlock problem, by switching over to hot stand-by it won't resolve the problem.

Dr Hon Raymond HO Chung-tai:

It would still not be able to resolve the problem?

Manager - Terminal Systems, Airport Management Division, AA:

No. They are basically duplicating the other system so the problem would carry to the other system also.

Dr Hon Raymond HO Chung-tai:

The hot stand-by is not really a stand-by which can be used if the main system fails?

Chairman:

It depends on what fails.

Manager - Terminal Systems, Airport Management Division, AA:

Yes, it depends on what fails, right.

Chairman:

If the hardware fails --

Dr Hon Raymond HO Chung-tai:

It is only when the hardware fails then this is --

Manager - Terminal Systems, Airport Management Division, AA:

A certain degree of software.

Dr Hon Raymond HO Chung-tai:

I see. That is what I was trying to get at.

Chairman:

Not the problem that you had on AOD?

Manager - Terminal Systems, Airport Management Division, AA:

Not the problem we had on AOD.

Dr Hon Raymond HO Chung-tai:

Fine. In fact there was some post-mortem done after AOD, are you aware of that? A post-mortem investigation?

Chairman:

An investigation of what actually happened as far as FIDS was concerned?

Manager - Terminal Systems, Airport Management Division, AA:

Yes. Now it is more clear to us what happened.

Chairman:

You did the post-mortem?

Manager - Terminal Systems, Airport Management Division, AA:

Not me.

Chairman:

Who did it? IT did it? They did a post-mortem after AOD?

Manager - Terminal Systems, Airport Management Division, AA:

I'm not sure if it was IT, but EDS, Oracle, IT, all the technical support group.

Chairman:

Did you sit together with them?

Manager - Terminal Systems, Airport Management Division, AA:

No. It was a technical investigation and now there are more reports coming out so we are more clear what had happened that day, what was the problem.

Dr Hon Raymond HO Chung-tai:

Are you aware that there could be reports after the post-mortem was done?
Are you aware of certain reports done after the post-mortem?

Manager - Terminal Systems, Airport Management Division, AA:

When? At what time?

Chairman:

After AOD?

Manager - Terminal Systems, Airport Management Division, AA:

Just like now, whenever we have a problem we always request a report. A report is a must.

Chairman:

So what happened on AOD? You have a report. Have you read the report that investigated into what happened on AOD?

Manager - Terminal Systems, Airport Management Division, AA:

Is there one report on what happened on AOD? I don't think so. Because of all these investigations and there are quite a lot of documents.

Dr Hon Raymond HO Chung-tai:

One last point, Miss CHEUNG, if I may. You have been trained as a computer scientist?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Dr Hon Raymond HO Chung-tai:

Do you think you could supply us, after this hearing, in writing your past experience and your past training?

Manager - Terminal Systems, Airport Management Division, AA:

Sure.

Chairman:

Miss CHEUNG, one question about the stand-by system which the AA decided to set up in February.

Manager - Terminal Systems, Airport Management Division, AA:

Yes?

Chairman:

That stand-by system, you wrote the operational procedures for that?

Manager - Terminal Systems, Airport Management Division, AA:

Yes.

Chairman:

There it says if down for more than 3 hours, then confirm with IT, maintenance and so on. In that case the "down" means total crash, right?

Manager - Terminal Systems, Airport Management Division, AA:

Yes, total crash.

Chairman:

It wasn't the down that you were talking about?

Manager - Terminal Systems, Airport Management Division, AA:

No.

Chairman:

So there are different degrees of "down"?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Chairman:

Your understanding was that the stand-by system was actually to cater for the absolute worst scenario?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Chairman:

Not the lowering of performance standards, not the kind of scenario that you faced on AOD?

Manager - Terminal Systems, Airport Management Division, AA:

Not that scenario. However, I don't think for this type of thing you have a firm or clear-cut line, saying that only this you do this, only that you do that. You had to have some sort of analysis and judgment on that date that if the situation got worse we could switch over to stand-by system. However, the decision was made not to and I believe the decision was correct. I support the decision. If I was asked, I would provide the same analysis not to switch over.

Chairman:

You were always aware of the fact, right from the word 'go', that it took 35 minutes to switch over.

Manager - Terminal Systems, Airport Management Division, AA:

Somewhere around 35, 45 minutes, for the mechanical switch-over that is necessary, correct.

Chairman:

From the user point of view, what would happen during all that time? While all this is happening, for the passengers, for the members of the public --

Manager - Terminal Systems, Airport Management Division, AA:

That would be supplemented with whiteboards and public announcements. Throughout the study I had with other airports, in fact that is the general practice which is worldwide. There is always system down-time. You go to any system development in any other area -- even in our PTS it is 99%, 90-something per cent availability, meaning that you would expect some down-time during the

year. So what happened in those down-times? It doesn't mean that you have to build a totally different application to cover those down-times. It is the worldwide practice in other airports that you have whiteboards and signage and public announcement to supplement those hours of down-time. During those 3 hours it is reasonable if you have a static screen which showed basic flight schedules and any changes you supplement with whiteboards and public announcements.

Hon Margaret NG:

Madam Chairman, I will just clear up one small point and then I will ask another question.

Chairman:

It is 7 o'clock.

Hon Margaret NG:

Madam, I am in your hands.

Chairman:

Go on. Ask this one first.

Hon Margaret NG:

Miss CHEUNG, I am referring now to the meetings about whether or not to switch on stand-by FIDS. I believe that in the Commission of Inquiry you answered that there were 2 meetings in which the question was considered, is that right? Let's go to the first one. At 10.30 am in the morning, there was review of the situation and a conscious decision not to switch on stand-by FIDS, is that right?

Manager - Terminal Systems, Airport Management Division, AA:

Correct.

Hon Margaret NG:

Was there another occasion at 4 o'clock?

Manager - Terminal Systems, Airport Management Division, AA:

There was a meeting, but not talking about stand-by FIDS. There was 2 meetings. In fact --

Hon Margaret NG:

Don't worry. That is fine. Reading the transcript, I rather got the impression that there was another decision?

Manager - Terminal Systems, Airport Management Division, AA:

I remember what question was asked. They asked me about the meetings, at 4 o'clock and 10 o'clock, and right after that they asked me about the stand-by decision and how it was made. I still remember very clearly. At 4 o'clock there was no discussion on the stand-by FIDS. The reason was that at 4 o'clock when the snowball effect took place it was not something that you could turn to the FIDS to rescue the situation.

Hon Margaret NG:

Switching on stand-by would not have helped at that time?

Manager - Terminal Systems, Airport Management Division, AA:

At that time it was not even a consideration.

Hon Margaret NG:

My question is: When you were talking about the whiteboards, the workarounds and so on, of course in any airport, any situation, there may sometimes be a down-time. You are looking at an AOD situation, you start from scratch, and you are very concerned to make sure that it is efficient. We have seen letters, memos from K S NG, who when he designed all these also reminded the management that because the workarounds, whiteboards and so on were so labour intensive and the airport was so large, that if you had to fall back entirely on manual that was going to be a problem? Do you agree with that?

Manager - Terminal Systems, Airport Management Division, AA:

I wrote that memo, yes. I agree.

Hon Margaret NG:

Very good. Before AOD, if you knew beforehand that it was all going to run on a manual system, would you still be confident that AOD would give you a smooth and efficient airport?

Manager - Terminal Systems, Airport Management Division, AA:

AOD, smooth and efficient -- I think before AOD we believed that the situation was workable. However, I always believed that - this is my personal view - that every time you have a workaround you have a trade-off and there is a certain trade-off meaning that you might suffer some degree of efficiency. That is the trade-off. However, at the time there was a time limitation.

Hon Margaret NG:

Madam Chairman, not to allow Miss CHEUNG to waste her time on that. It is not actually what happened, but, if you had known beforehand that on AOD your systems were going to be so unreliable that basically the airport had to run entirely on the contingency plan that you had set out in your manuals, would you still say that the airport would be efficient and smooth?

Manager - Terminal Systems, Airport Management Division, AA:

No.

Chairman:

Miss CHEUNG, there are 2 general questions which, broadly speaking, we would like you to answer.

Hon Emily LAU Wai-hing:

Can I ask a very quick question about stand-by FIDS in other airports? Miss CHEUNG talked about the practice in other airports with whiteboards and so on. Do you know of any other international airports which have a stand-by

FIDS system?

Manager - Terminal Systems, Airport Management Division, AA:

Not to my knowledge. But we have a very different situation. Because we are building a new airport, we don't want to use a whiteboard to open the airport. They are looking for other alternatives to see that we have an electronic means.

Chairman:

But was your understanding the same as Mr CHATTERJEE's, that that stand-by FIDS was to cater for a total non-availability of the main FIDS? It was there to cater for non-availability, so that when the main FIDS could not function, there was no delivery of FIDS or the FIDS did not work on AOD, then you would switch to stand-by?

Manager - Terminal Systems, Airport Management Division, AA:

That is certainly one of the objectives.

Chairman:

Not one of? Was that the only one? We were trying to find out whether it was there to also cater for low performance and we were told no, it was actually there only to cater for total catastrophic failure of the main system. Was that your understanding too?

Manager - Terminal Systems, Airport Management Division, AA:

My understanding was that we needed something to supplement FIDS because we didn't have confidence in EDS's development work. If you talk about the decision to switch over to the FIDS, again, my feeling is that there was no clear-cut way to switch over. There must be an analysis done.

Chairman:

You see, that affects that decision. If you believed that that system was there to cater for total catastrophic failure as well as very poor performance, like slow response and so on and so forth, then the decision might have been taken even at a point when there was not a total down situation of FIDS? Do you see

what I mean?

Manager - Terminal Systems, Airport Management Division, AA:

I see what you mean. Looking at the Day one situation, whether the stand-by FIDS could save the situation, I think again it is an argument. Everyone will have a different opinion and my opinion is that it was the correct decision.

Chairman:

2 questions. First, a general question: Whether the problems with FIDS on AOD were by and large unanticipated or could they have been anticipated but not arrested?

Manager - Terminal Systems, Airport Management Division, AA:

You mean all the problems we encountered or just the slow performance?

Chairman:

FIDS.

Manager - Terminal Systems, Airport Management Division, AA:

FIDS, some of the problems we anticipated. Like I say, some of the displays or some of the monitors blank out, that was anticipated. However, the slow performance was not anticipated. That degree was not.

Chairman:

The other question is that it seems from the log that there were quite a lot of things in the PTB, even before the airport opened that you had actually identified as not working, like the APM, the automatic people mover, the traveller, and some of the other systems, and of course the PA system didn't work, and so on. These items, perhaps you can answer us in writing after you go back, have a look at the log, and tell us whether these things that you spotted in PTB that didn't work on that day or failed on that day were anticipated or could have been prevented on AOD? It is a general thing?

Manager - Terminal Systems, Airport Management Division, AA:

Under what criteria? Given more time you mean? Given more time could we rectify it? Or under the constraint that given exactly the same time you had to deliver could you rectify it?

Chairman:

I saw that with the traveller, for example, there was this mention that you had already reported it to Maintenance 10 days ago and still nothing seemed to have been done about it. Escalators you identified in the trial that something was not right and yet there was still so many escalators not working? Could you actually look at the log on AOD, look at the failure of these? It snowballed, didn't it, the whole day? So many problems? Look at the ones you detected on the day and then come back and tell us in writing whether they could have been anticipated or prevented?

Manager - Terminal Systems, Airport Management Division, AA:

OK.

Chairman:

Thank you very much. Today's hearing will end now and, Miss CHEUNG, please note that if this Committee considers it necessary to order you to give further evidence you must attend further hearings. You may withdraw now. Thank you.

(The hearing ended at 7:13 pm)