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JOINT COMMITTEE ON PUBLIC WORKS

**Reference: Perimeter security fence, RAAF Base Tindal, Katherine, Northern Territory**

WEDNESDAY, 9 JULY 2003

TINDAL

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**JOINT COMMITTEE ON PUBLIC WORKS**

**Wednesday, 9 July 2003**

**Members:** Mrs Moylan (*Chair*), Mr Brendan O'Connor (*Deputy Chair*), Senators Colbeck, Ferguson and Forshaw and Mr Jenkins, Mr Lindsay, Mr Lloyd and Mr Ripoll

**Senators and members in attendance:** Senators Colbeck and Forshaw and Mr Jenkins, Mr Lloyd and Mr Brendan O'Connor (*Acting Chair*)

**Terms of reference for the inquiry:**

To inquire into and report on:

Perimeter security fence, RAAF Base Tindal, Katherine, Northern Territory.

**WITNESSES**

**FERRARIS, Mr Diego Felice, Director, Project Delivery North, Infrastructure Asset Development, Department of Defence ..... 1**

**HUTCHINSON, Brigadier Peter John, Director-General, Infrastructure Asset Development, Department of Defence ..... 1**

**LAX, Air Commodore, Mark Roger, Director-General, Policy and Planning, Air Force, Royal Australian Air Force Headquarters ..... 1**

**METZ, Group Captain Cornelis Antonius, Base Commander, RAAF Base Tindal, Royal Australian Air Force ..... 1**

**WHITE, Mr Gregory William, Senior Engineer, GHD Pty Ltd..... 1**



**Committee met at 2.04 p.m.**

**FERRARIS, Mr Diego Felice, Director, Project Delivery North, Infrastructure Asset Development, Department of Defence**

**HUTCHINSON, Brigadier Peter John, Director-General, Infrastructure Asset Development, Department of Defence**

**LAX, Air Commodore, Mark Roger, Director-General, Policy and Planning-Air Force, Royal Australian Air Force Headquarters**

**METZ, Group Captain Cornelis Antonius, Base Commander, RAAF Base Tindal, Royal Australian Air Force**

**WHITE, Mr Gregory William, Senior Engineer, GHD Pty Ltd**

**ACTING CHAIR (Mr Brendan O'Connor)**—Welcome. I declare open this public hearing of the Joint Public Works Committee into the construction of a perimeter security fence at RAAF Base Tindal, Katherine, Northern Territory. This project was referred to the Public Works Committee on 26 June 2002 for consideration and report to parliament. In accordance with subsection 17(3) of the Public Works Committee Act 1969:

- (3) In considering and reporting on a public work, the Committee shall have regard to—
- (a) the stated purpose of the work and its suitability for that purpose;
  - (b) the necessity for, or the advisability of, carrying out the work;
  - (c) the most effective use that can be made, in the carrying out of the work, of the moneys to be expended on the work;
  - (d) where the work purports to be of a revenue-producing character, the amount of revenue that it may reasonably be expected to produce; and
  - (e) the present and prospective public value of the work.

This morning the committee received a briefing from the Department of Defence and inspected the site of the proposed works. The committee will hear evidence from the Department of Defence. The committee has received a submission from the Department of Defence and this submission will be made available in the volume of submissions for the inquiry, and they are also available on the committee's web site. Does the department propose any amendments to the submission it has made to the committee?

**Brig. Hutchinson**—We forwarded a copy of an amendment to the statement of evidence about two weeks ago. If you wish, I can read that amendment now to put it on the record. Since the referral of the statement of the evidence to the parliamentary Joint Committee on Public Works on 24 June 2002, a value and risk management process has been undertaken to develop the scope of works and to ensure better value for money for the Commonwealth.

As a result of this process, a number of adjustments to the scope of works are now proposed. Firstly, an amendment is proposed to the fence alignment, which will result in the reduction of the total length, from 17.7 kilometres to about 13.9 kilometres, and which will reduce the response time from a maximum of 15 minutes to eight minutes and allow better access and control and monitoring of the civil terminal—referred to in the statement of evidence at paragraphs 18 and 29.

The revised alignment is considered to provide a more cost-effective solution without compromising the function of the proposal. In addition this will allow the use of the existing roads where possible, providing better access for construction and monitoring. Revised attachment 2, which I shall also table and which the committee saw in the confidential briefing this morning, provides the details of that proposed change to the alignment.

Secondly, it is proposed to use a weldmesh fence in lieu of the standard chain mesh fence to increase the penetration time of the physical barrier, and this is covered in the statement of evidence at paragraph 22. It is also proposed to use an intruder detection system with security cameras to improve the remote monitoring and to decrease the number of false alarms. Statement of evidence paragraphs 17, 18 and 24 refer to that.

Finally, there is a proposal to seal the all-weather road, which is considered to be a more cost-effective, whole-of-life option for the project. Overall, the proposed amendments will result in reduced through-life costs of the proposed perimeter fence due to the reduced maintenance costs, improved access and a more reliable detection system. I table that revised information.

**ACTING CHAIR**—Thank you very much. We will mark that information as exhibit 1. Would you like to give an opening statement?

**Brig. Hutchinson**—The Department of Defence seeks approval for the construction of a new perimeter security fence at RAAF Base Tindal, Katherine, Northern Territory. RAAF Base Tindal is part of a chain of airfields stretching across Northern Australia, from Learmonth in Western Australia to Townsville in North Queensland. It is the home base for No. 75 Squadron, a tactical fighter squadron equipped with FA18 Hornets that has recently deployed to Iraq. Tindal is also a forward operating base for other defence elements, a staging area for exercises conducted in the area and a possible secondary base for the airborne early warning and control capability.

RAAF Base Tindal is the home base for a key element of the Australian Defence Force's combat industry, and it plays host to a range of other visiting capability elements. The security of aircraft assets is a prime consideration for Defence and is currently provided by a chain mesh fence and RAAF police patrols. Existing security plans would be enhanced through the protection in depth that would be achieved by providing an alarmed security perimeter fence to the base. This arrangement acknowledges our changed strategic circumstances since 11 September 2001.

The proposed perimeter security fence, integrated with the existing base security arrangements, will be of sufficient standard to deter, prevent and detect any intrusion, allowing Royal Australian Air Force security forces to mount an effective and timely response. The proposed works include the following elements: a weld mesh security fence incorporating a



combination of intruder detection systems and security cameras; a cattle fence erected outside the security fence to prevent activation of false alarms by livestock; a sealed all-weather access road on the inside of the fence and a maintenance track acting as a firebreak on the outside of the fence; and a computerised control system located within the base, which will provide for integrated response to all alarms by security and emergency forces.

The budget for this project is \$9.25 million. This includes construction costs and professional design and management fees and charges, together with an allowance for contingency, but excludes any allowance for escalation costs and goods and services tax liability. The proposed new perimeter security fence will be part of an integrated security system that deters the casual intruder and provides early warning of unauthorised access. The proposal will enhance the overall security of RAAF Base Tindal and improve the capability of the base to conduct its role in peace or contingency situations. Subject to parliamentary approval, works are planned to commence in late 2003 and to be completed by December 2004—12 months later than the original referral motion.

**ACTING CHAIR**—Thank you very much.

**Senator COLBECK**—In your briefing this morning, and I think perhaps even in your notes, you indicated that there are some issues in relation to damage to the existing fence by wild animals such as buffalo pushing it over. So you have this fence designed as a perimeter fence and you have a stock fence outside that. Is that stock fence electrified to try to mitigate damage to the stock fence as well as to the perimeter fence?

**Brig. Hutchinson**—At this stage, as far as I am aware, there is no plan to electrify the outer fence. Part of the issue is that, as you saw in your inspection, some of the fencing is relatively old and was constructed at different times; therefore, it is more susceptible to damage by animals and so on. With a newly constructed fence and with continuing programs to reduce the numbers of some of these animals—the buffalo you referred to are not a native animal, and they are looking at reducing their numbers in the Territory to try to eradicate them—we think the arrangement will be an adequate way of protecting the new fence. Greg, would you like to expand on that at all?

**Mr White**—No, that is correct.

**Senator COLBECK**—You note in your design considerations stipulations for signage and surveillance. Can you expand on what the requirements are for those?

**Brig. Hutchinson**—I will have to ask either Mr Ferraris or Mr White to talk about that. But I would just outline that, firstly, all Defence bases have signage notifying that the property is a Defence base. There was also some concern, as I understand it, about making the fence visible to people.

**Mr White**—As Brigadier Hutchinson said, there is the normal signage that is required to let people know that, if they go through the fence, they are passing onto Defence property. The other issue relates to a certain bird that lives in the area and which the environmental study identified as potentially being damaged by barbwire. Therefore, it was recommended that the top

strand of the barbwire on the fence be coloured or marked in some way to stop that bird from flying into it.

**Senator COLBECK**—Your submission states that, where appropriate, the construction will be guided by a range of standards including the BCA, current Australian standards and codes, the Defence manual of fire protection engineering, the environmental protection act and regulations and the Occupational Health And Safety (Commonwealth Employment) Act. The situation that currently exists with the Australian standard as it relates to fencing, from my experience, is that it is not really in accord with current material practices. Could you expand on that for the record?

**Brig. Hutchinson**—Yes. The fence is being designed to the British standard because the British standard incorporates the experience they have had in dealing with security issues related to Northern Ireland over a number of years, which is not reflected in the Australian standard. The Australian standard is quite outdated in relation to those higher security issues. Perhaps Mr Ferraris can expand on that.

**Mr Ferraris**—Certainly the British standard is recognised as being at a higher level and is more current to the requirements. I understand that the current Australian standard for fencing is under review by the standards association. I also understand that we will be adopting a lot of the practices and standards that are in the British standard. We have taken the option to design the fence using the British standard.

**Senator COLBECK**—And the tender documents will reflect that?

**Mr Ferraris**—They will.

**Senator COLBECK**—You mentioned—and I understand that there has been some revision since the original submission went in—solar power for the security system. Is that being incorporated into the contract and is it within the costings?

**Brig. Hutchinson**—Yes, it is.

**Senator COLBECK**—Also in your submission, at page 10, paragraph 38, you mention an archaeological survey being conducted in conjunction with the traditional owners. What is the status of that, and how might it impact on your completion dates?

**Brig. Hutchinson**—Defence commissioned URS, an environmental consultant, in June 2002 to prepare an issues specific environmental impact appraisal for the fence and to ensure its compliance with the relevant Commonwealth and Northern Territory acts and regulations. Since our submission of evidence last year, our environmental and heritage studies have indicated that works will not impact on matters of national environmental heritage significance. These studies have also confirmed that there is no requirement to undertake referral action of the proposed works under the Environment Protection and Biodiversity Conservation Act.

On the heritage and archaeological sides, an archaeological survey was conducted to confirm the location of previously identified sites and the occurrence of archaeological sites in close proximity to the fence alignment and to determine appropriate conservation and/or

documentation actions with respect to those sites. Five archaeological sites represented by stone artefact scatters, rock engravings and paintings and one historic World War II site have been identified. However, none of those sites are located along the proposed alignment and they will not be affected by the fence construction. I believe the latest information is that all of that has been updated with the proposed change to the fence alignment and still applies.

**Senator COLBECK**—On the same page, at paragraph 40, you say that ‘the following external authorities have been or would be consulted,’ and you have a list of nine. Have they all been consulted at this point in time? Where do you stand with that?

**Brig. Hutchinson**—I will have to pass to one of the learned gentlemen on my right, perhaps Mr Ferraris.

**Mr Ferraris**—My understanding is that they were all consulted during the original investigations and, where there have been changes, we have gone back to consult with the relevant stakeholders. For example, in relation to the Aboriginal Areas Protection Authority certificate that we got on the original alignment, an application has been submitted and we understand that there is a six- to eight-week processing time for the new certificate to be signed off. The environmental consultant, URS, has submitted a draft report and the indications are that there are no environmental heritage issues.

**Brig. Hutchinson**—I can take that on board now. It has just been confirmed by the project officer that all those authorities have been consulted.

**ACTING CHAIR**—When you say ‘consulted’, do you mean that they have been informed or that you have been engaging in discussions?

**Brig. Hutchinson**—We have been engaging in discussions with them.

**Senator COLBECK**—The active element of the project is mentioned in here, and I assume that would still apply with the changing of the design with respect to the surveillance issues. You have listed in here four contactors that will be approved to do that particular work. How will you ensure they will be involved? Will it be by nominated subcontractor or nominated supplier, or will it be by separate portions of the contract?

**Mr Ferraris**—The four contractors nominated there were related to the proposed technology of taut wire, but they are no longer applicable to the current proposed surveillance technology. We are required to go to nominated security cleared suppliers of security equipment, and they are Honeywell, Chubb and API.

**Senator COLBECK**—What is the process for dealing with them?

**Mr Ferraris**—We nominate them as nominated subcontractors.

**Senator COLBECK**—So they will be listed in the contract documents as the contractor to go to for that specific section of the work?

**Mr Ferraris**—They will.

**Senator COLBECK**—The project itself will be delivered as a design and construct project. What is your process for checking compliance—for example, is there a requirement for a QA system to certify at the end of the project that it has been delivered as per the specifications?

**Mr Ferraris**—The works will be completely designed before we seek contracts, and the designers will be required to certify that the designs meet the appropriate standards that are called for in the specifications in the contract. Subsequent to construction contractors—and we require all our construction contractors to have quality management systems—we will get appropriately qualified certifiers to certify that the actual construction works comply with the design.

**Senator COLBECK**—Will there be an expressions-of-interest process, or will you go out to a selected contractor?

**Mr Ferraris**—We will do a two-stage competitive tendering process, both for the main packages of civil works and for the technology package. Of course, the technology package is constrained to the three suppliers that we are allowed to tender with.

**Senator COLBECK**—What are the comparative issues in relation to base life versus fence life?

**Air Cdre Lax**—I can tell you about the base life. The Air Force has long-term plans for RAAF Base Tindal. It is my belief that the base will outlast this fence—at least 30 years plus is my best estimate. The committee may note that the Department of Defence has been tasked to do a force disposition review, which will be brought down in about March next year for government consideration. That review will look at the 11 existing RAAF bases among all the other Defence properties. But it is my opinion that, at this stage, Tindal has great longevity.

**Brig. Hutchinson**—You have raised an interesting question, Senator Colbeck. I am told that the fence does not have a design life, but the road has a design life of 20 years. I would imagine that this sort of technology, depending on your manufacturer, would have some sort of a warranty, but I do not think it would be anywhere near the life of the base. I am afraid I cannot give a definitive answer to that question.

**Senator COLBECK**—We heard yesterday in another inquiry that a design life of 25 years is built into projects for Defence.

**Air Cdre Lax**—That is right.

**Senator COLBECK**—That obviously has not been considered as part of the design of this process, or maybe it has but has not been answered yet.

**Brig. Hutchinson**—That is something that has slipped under my guard. I would imagine that, if you wanted to design a fence that would actually last for 25 years, particularly one of this type of technology, it would be very expensive given the nature of the environment here.

**Senator FORSHAW**—How long has the current one been there?

**Brig. Hutchinson**—The current one has not been completely effective in its period of time.

**Senator FORSHAW**—I realise that, but there is effectiveness as a deterrent in keeping people out and keeping animals out, and there is also the physical degradation, if you like—the rusting or whatever—of the material.

**Group Capt. Metz**—The current fence was constructed in 1986 and has had ongoing maintenance to various degrees, depending on the serviceability of the fence.

**Senator FORSHAW**—You have gone to a taut wire as the type of material to be used. Can you tell us anything about its longevity?

**Mr Ferraris**—We are not proposing to use the taut wire technology.

**Senator FORSHAW**—I am sorry, I meant the weld mesh.

**Mr Ferraris**—The weldmesh itself is a quite robust material and would probably have an extensive life. We are certainly not going to cut corners on the quality of materials. We will go to regular suppliers and get long-lasting materials. As to the technology itself, we really do not have much information to tell us how long the closed-circuit TV cameras et cetera will last. We do intend to make the contract for the technology a performance based one and will include a request for five years maintenance as part of the tendering activity so that we can get a much better idea of what the whole-of-life costs will be.

**ACTING CHAIR**—This is a critical issue, because we cannot evaluate value for money if we do not know the estimated life.

**Brig. Hutchinson**—On the first point that Mr Ferraris made, on the five-year maintenance contract side of things, clearly we would want to get well beyond that in terms of technology. However, computer technology turns around in those sorts of time frames. With the physical fence, we are talking about a life somewhere in the range of 20 years, but I would expect that we would have to update the software—and we might have to update the camera technology and that sort of thing—much before that time. The software and the cameras will last for a certain period of time, and the cable detection technology will also have a life, but we would really need to go further into the design and the evaluation of those different components before I could give you a firm answer. Clearly we would be looking to push the limits of the technology to get the best value for money in terms of its time and life, but the detail of our design has not given us those answers yet. We will be looking to push those out as far as possible.

**ACTING CHAIR**—I will just foreshadow that we will need some information on those issues before we sign off on a report coming out of the inspection and the hearing today.

**Senator FORSHAW**—This sort of technology would be in use in other parts of the world.

**Air Cdre Lax**—That is right.

**Senator FORSHAW**—I appreciate that, as part of your tender and design processes, you will look at the software and the type of camera.

**Brig. Hutchinson**—Part of our value-for-money evaluation of a tender would be those sorts of whole-of-life issues.

**ACTING CHAIR**—The life of each part of the construction varies, understandably, so we need a delineation of an estimated duration. Before we proceed, I acknowledge the Mayor of Katherine. Welcome, Mr Jim Forscutt. Thank you for coming today. I understand the mayor does not want to make a statement, but it might be fair to say that he overwhelmingly supports the project. I will say on his behalf that I understand that, through the mayor, the council is very much looking forward to the construction of this fence.

**Mr LLOYD**—Senator Colbeck has asked most of my questions, which saves time and is not a problem at all, but I have a comment rather than a question on the fence technology: I encourage you to make sure that the technology is in a module format and is not tied to the fence so that, in the event that technology moves forward to a point where you want to update cameras and software, you do not need to update the whole infrastructure just to upgrade one part of the technology. I encourage you to talk to whoever is the preferred tenderer. With respect to tendering or asking people to come forward on the design and construct: are they given an end total of the budget, are they just asked to come forward with their proposals, or are they given a price range? Are they told: ‘We have X number of dollars, and we want to design this fence and project, so basically come in with a proposal that comes in at that budget’? Or are they told, ‘Give us your best price’?

**Brig. Hutchinson**—For the initial design work, we used qualified quantity surveyors, along with our consultants, to come up with a series of design options that we then costed. So that was our initial assessment. When we go out to tender, we will not tell them what we think the individual elements will cost other than to say that, because of this hearing, the total budget is on the public record. But that does not break down into what our contingencies might be and what the different elements are, and we will be tendering different packages. Basically it goes on the open market as an open tender. We will then evaluate the tenders not only on the price but on the total value for money and all of the issues that we have just been talking about, including the whole-of-life aspects and the sorts of guarantees we might get on the life of this technology. I acknowledge that the issues you raised about the modularity and the adaptiveness of the technology for future upgrades are issues that we would assess in that value-for-money evaluation of the tenders that come in.

**Mr LLOYD**—Thanks. That gives me a better understanding—I was not quite clear on the process. The change in the perimeter fence in relation to the civil aviation aspect of the airport seems to be quite a positive change and alleviates a lot of the difficulties of getting access to that terminal. Is my understanding correct?

**Group Capt. Metz**—It is, Mr Lloyd. The access passes through current fence lines. That does not give me control of that. The new alignment certainly prevents that. There will be dedicated access through the terminal, which we can control when required to do so. The new alignment certainly takes that into account, and it is a much better alignment than what was previously proposed.

**Brig. Hutchinson**—In our consultations with the town council, there were some concerns about the original alignment. My understanding is that the town council is now much happier

with the arrangement that we have made. So it is win-win situation, both from a defence security point of view and also from the point of view of the council's operations of the civil terminal.

**Mr LLOYD**—For the record, I note the mayor is nodding in agreement.

**ACTING CHAIR**—Before we continue questioning, the map we were provided earlier today at the briefing indicates the earlier proposed perimeter and the new proposed perimeter. The map should be made an exhibit for the purpose of evidence and will be exhibit 2.

**Brig. Hutchinson**—We will undertake to amend that map so you can differentiate. I note that it is in colour, which is good for us to look at, but we will give it to you in a different form so you can distinguish between the two alignments in the report.

**Mr JENKINS**—Will the department take it on notice to supply it?

**Brig. Hutchinson**—You should expect the one that actually has the photograph.

**ACTING CHAIR**—That is recorded.

**Mr JENKINS**—I have a couple of questions but, first of all, let me say that my colleagues from the governing party have asked some of the questions that I would like to have asked. I am a little unsettled that we are of like mind today and that they are in fact sitting to my far left! Having said that, to help me get into stride, let me ask one more trivial question: I note a bike path along the northern perimeter that will be partly compromised by the new fence route. What will happen to the bike path?

**Group Capt. Metz**—The bike path will certainly remain as is. There will be access through the western gate, as we have currently. That access will still be controlled, so they will still be able to use the bike path. During times when those gates are closed, the external road that will be part of the new fence line can also be used.

**Mr JENKINS**—I thought that might be the case. Para 9 of the submission talks about the 'RAAF Base Tindal master plan'. When does that date from?

**Mr Ferraris**—I have been informed that it dates from 1996.

**Mr JENKINS**—I note that it will be upgraded and that the new fence line will be incorporated in it. We had a discussion today about some of the assets and facilities that will now fall outside the fence. The submission also refers to Tindal stage 5 and suggested works with the airborne early warning and control aircraft project. Were those matters that were in the future, as well as the present assets, taken into account when the new fence line was decided upon?

**Brig. Hutchinson**—Yes, they were.

**Mr JENKINS**—Is there any change to the master plan because of the different climate that led to the necessity for the fence?

**Brig. Hutchinson**—At this stage, the fence is the reaction to the changed climate. The other master planning considerations are considered to be adequate. Bearing in mind that this base has actually been designed as a tactical base—as you would have seen with the ordnance loading areas and so on and the total layout—it has a number of layers of security measures built into the master planning already. The fence provides the final reaction to those changed circumstances and provides another layer to the onion ring system, if you like.

**Mr JENKINS**—The next question relates to a number of the policy guidance publications that are listed in paragraph 25. Again so that I can get a feel for this, what is the currency of those documents and, therefore, their relationship to any revision that has been made of these matters about fence design and things like that?

**Mr White**—The four documents that are listed there are all still current. Neither the original proposed alignment nor the revised proposed alignment contravene or are in contradiction with any of those.

**Mr JENKINS**—I suppose I was asking how contemporary those documents are. When do they date from? Are they under review?

**Brig. Hutchinson**—Let me take that on notice to give you a proper answer.

**Mr JENKINS**—The final question is on paragraph 28. Senator Colbeck asked about the solar powered aspect of it. Also, when we were talking about the taut wire technology, there was talk of the provision of a secondary control system to provide redundancy and improve flexibility. With the new technology that is now proposed, will it be the case that there will be that provision?

**Mr Ferraris**—Yes.

**Senator FORSHAW**—For the purpose of the record, but obviously not wanting to go too far in terms of particular security issues, the original proposal was that there be a perimeter fence right around all of the facilities of the base. You pointed out this morning that the new proposal has certain advantages with respect to timeliness of responses to possible intrusions and that there are a number of facilities located outside the proposed new perimeter fence which themselves have their own secure fence arrangements. Could you comment on that so we have it on the record?

**Group Capt. Metz**—Those facilities that you referred to are the explosive ordnance facilities. Those facilities are currently hardened facilities. They are also alarmed, and they meet the current specifications. So, even though they are outside the proposed new alignment, they meet those requirements. We also have access to those areas should an alarm be triggered. It certainly is not of concern that they are, necessarily, outside the new alignment. They are also fenced.

**ACTING CHAIR**—Just on that, the civil terminal will be outside. I am not sure whether that was raised in the hearing.

**Mr LLOYD**—I raised it but, if you are talking about an alarm or security for the civil terminal, that was not raised. It is probably an issue that should be raised, because the civil



terminal is now outside the fence. Are you asking what security is in place for the civil terminal? Is that where you are coming from?

**Group Capt. Metz**—As far as I am aware, there will not be any specific alarms for the civil terminal, only for the fence itself. It forms part of the alignment. There are a number of access gates from the civilian side onto the military side or onto the air side. Those areas will be alarmed but not the civil terminal itself, because it will be outside the fence line.

**Brig. Hutchinson**—I will expand on the initial answer to the areas that are outside the fence.

**Senator FORSHAW**—I am happy for you to do that. I suppose I was a bit conscious about how much we should identify those sorts of things on the public record, but it is up to you.

**Brig. Hutchinson**—The other issue that I had, and I mentioned it in my amendment to the evidence, is that by changing the alignment of the fence we are now able to respond to all other areas more rapidly. We have a tighter, more rapid response. If we expanded further out, the response would be longer.

**Mr JENKINS**—In relation to the civil terminal, does the MOU actually go to security matters of checking of passengers land side before going air side?

**Group Capt. Metz**—That is done in accordance with the current procedures for civilian terminals. That is controlled by the council.

**ACTING CHAIR**—I am reading the amendments you provided to us earlier, which have been tendered, in conjunction with the full submission. I want to clarify: in paragraph 17, under 'options', it talks about the 'active' fence. When this submission was written, it was referring to the original proposal. Under that option, it says:

The active fence provides for both detection and communication of contacts along the fence line.

It talks about the advantages, in particular lower maintenance costs and fewer false or nuisance alarms. Does the shifting from one type of fence to another change any of that?

**Brig. Hutchinson**—The cameras are incorporated into the new proposal. The key thing about the cameras is that they will be used as a verification mechanism. What we are concerned about is that, under the old option 4, we would have detected that something was happening but we would not have known what was happening. So you now have a visual of that. Under the previous submission, the only way would be to react a patrol to look at what was happening. Our concern was that, if we did that a few times in response to false alarms, people would become less responsive.

**ACTING CHAIR**—Will it still be infra-red? Is that part of the system? Has that been taken out entirely?

**Mr White**—The current proposal does not specify the detection technology system. There are three or four options. Which of those would be selected has not yet been determined and probably would be done during that tender process on a value-for-money basis. We, as the

designers of the fence, firmly believe that the combined system of an alternative technology and the cameras provides for an overall more reliable and less false alarm nuance system than was previously proposed.

**ACTING CHAIR**—I suppose we are now talking about option 5.

**Senator COLBECK**—You are talking about having cameras on every kilometre or at strategic points along the fence, with change of direction and things of that nature. What elements would be built into the cameras to allow you to immediately locate a contact?

**Brig. Hutchinson**—Based on the experience of our consultants in providing this sort of technology in other areas, we are looking at having fixed cameras. We are not looking at scanning to see what is happening off the alignment; we are looking to identify on the alignment what is actually happening. From the advice we have, if you allow cameras to be scanned, sometimes the cameras get left in the scanned position, people get lazy and we might miss things that we are looking to cover.

**ACTING CHAIR**—Do you have any idea how far apart each of these cameras would be? How many would you be looking at?

**Brig. Hutchinson**—The maximum is one kilometre, I believe.

**Mr White**—They would be spaced one kilometre apart but each pole or each location would have a camera in each direction, which means effectively a 500-metre range.

**Senator COLBECK**—How would that work? Would there be constant monitoring?

**Mr White**—The cameras monitor constantly. With the software that is currently available, they will start to record only when movement is detected. Once that movement is detected, they will zoom to that movement.

**Senator FORSHAW**—Just to go back to the drawings you have given us and to the original proposal, which is shown on the map we were supplied with this morning as the green fence line, is that right around the outside perimeter of the entire area of the Commonwealth land or the base?

**Group Capt. Metz**—No, it certainly is not. The entire region is a lot larger than that. It is mainly the operational areas.

**Senator FORSHAW**—I understood that. This is not the subject of our inquiry, but is there any reason why there is not at least some sort of perimeter fence around the entire property?

**Group Capt. Metz**—There is a perimeter fence, but the property is very large. It is 122 square kilometres.

**Senator FORSHAW**—We build pretty large fences in this country. I take your point.

**Group Capt. Metz**—There is a perimeter fence around it. The perimeter fence is a four-strand barbed wire fence which essentially is a stock fence. If there were a security fence around that sort of thing, it would still increase my security problems.

**Senator FORSHAW**—Do not misunderstand me; I think you have answered the question. On recollection I think I did hear you say that this morning. It was just to confirm that, in the context of identifying the fact that it is Commonwealth land, there is a fence of some description which is signposted at points to say that it is Commonwealth or Defence land.

**Group Capt. Metz**—There is a fence around it. I am not completely sure about the signposting or the amount of signposting, but there is certainly signposting and it does go around the entire property.

**Senator FORSHAW**—The answer ‘yes’ will do if it is there.

**Mr LLOYD**—Back to the submission, attachment 4 talks about the proposed design of the culverts. The diagram has answered a lot of my questions, but I still have a couple of questions in relation to it. There is a debris screen at quite an angle, which I presume would have to be cleared on a regular basis during the wet season. My understanding is that, on the other side, once the water has flown through the culvert there is a steel security screen. I can just foresee that, if it were not maintained correctly, there could be some significant water damage if water were to block that culvert in the wet season and then dam up and undermine the fence. I was interested in a few more points on how that would be stopped.

**Brig. Hutchinson**—I acknowledge that, and certainly, this will be a maintenance requirement of the comprehensive maintenance contractor on the base to ensure that the points you just made are covered. I will ask Mr White to comment more on the design issue but, from the tone of your question, I take it that you acknowledge that in this area—with the rain and that sort of thing—we need to have this sort of arrangement but you are just flagging that it is a maintenance issue.

**Mr White**—I concur and note that, as part of the investigations that we have conducted to date, we have also developed a maintenance plan that identifies that very issue.

**Mr LLOYD**—Do any perimeter fences exist in the tropics such that you can look at the designs that are already working to see whether it is best practice or whether we can come up with something that is even better?

**Brig. Hutchinson**—My understanding is that our consultants have been involved in a number of projects, some of which have been in the tropics, such as detention centres and jails for various states. The experience of those projects will be incorporated in this project. Do you want to talk more about that, Mr White?

**Mr White**—If the question is in relation to the culverts specifically, those other facilities that have previously been designed with very similar fences but are generally short in nature—in the order of only one kilometre or so—whereas this fence is in the order of 13.9 kilometres. They are also in very flat and very manicured environments, such as around a jail. This is unique in a certain way, given the environment and the size, but we are certainly adopting some of the

solutions provided elsewhere. Debris screens through culverts are very difficult to avoid if you want the culvert to not be penetrable by a person when the culvert is not full of water.

**Mr LLOYD**—I understand that it is a difficult issue, and obviously a lot of work has gone into the proposed design of these culverts. I just want to put on the record some of those issues and hopefully they will be addressed by the eventual tenderers.

**ACTING CHAIR**—Are there any further questions?

**Mr JENKINS**—Will there be additional technology at the culverts? If somebody were to breach through the culvert, there is not the same protection.

**Mr White**—It is proposed that there be technology at the culverts. The technology comprises a solid steel grate to prevent debris and persons from intruding. Further inside the culvert is a mesh of hollow tubes with fibre inside them. If those hollow tubes are cut, the fibre is cut and therefore the alarm would go off. So each of those culverts is monitored.

**ACTING CHAIR**—There being no further questions, I would like to thank the witnesses who appeared before the committee today and those people who assisted our inspections and private briefing this morning.

Resolved (on motion by **Mr Jenkins**):

That, pursuant to the power conferred by section 2(2) of the Parliamentary Papers Act 1908, this committee authorises publication of the evidence given before it at public hearing this day.

**Committee adjourned at 2.58 p.m.**