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JOINT STANDING COMMITTEE ON FOREIGN AFFAIRS,  
DEFENCE AND TRADE

DEFENCE SUBCOMMITTEE

**Reference: Department of Defence annual report 2007-08**

THURSDAY, 16 APRIL 2009

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**JOINT STANDING COMMITTEE  
ON FOREIGN AFFAIRS, DEFENCE AND TRADE**

**Defence Subcommittee**

**Thursday, 16 April 2009**

**Members:** Senator Forshaw (*Chair*), Mr Hawker (*Deputy Chair*), Senators Mark Bishop, Ferguson, Fifield, Furner, Hanson-Young, Johnston, Ludlam, Moore, O'Brien, Payne and Trood and Mr Baldwin, Mr Bevis, Ms Julie Bishop, Mr Danby, Ms Annette Ellis, Mr Gibbons, Ms Grierson, Mr Hale, Mr Ian Macfarlane, Mrs Markus, Mr Murphy, Mr Oakeshott, Ms Parke, Ms Rea, Mr Ripoll, Mr Robert, Mr Ruddock, Ms Saffin, Mr Bruce Scott, Mr Kelvin Thomson and Ms Vamvakinou

**Defence Subcommittee members:** Mr Bevis (*Chair*), Mr Baldwin (*Deputy Chair*), Senators Mark Bishop, Ferguson, Fifield, Forshaw (*ex officio*), Furner, Johnston, Ludlam, O'Brien, Payne and Trood and Mr Danby, Mr Gibbons, Ms Grierson, Mr Hale, Mr Hawker (*ex officio*), Mr Ian Macfarlane, Mrs Markus, Mr Oakeshott, Mr Robert, Ms Saffin, Mr Bruce Scott and Mr Kelvin Thomson

**Members in attendance:** Senator O'Brien, Mr Baldwin, Mr Bevis, Mr Hale, Mr Robert, Mr Scott and Mr Kelvin Thomson

**Terms of reference for the inquiry:**

To inquire into and report on:

Department of Defence annual report 2007-2008

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**Subcommittee met at 9.00 am**

**CAMPBELL, Commodore Mark, Director General, Naval Aviation Systems, Defence Materiel Organisation, Department of Defence**

**FRASER, Major General Tony, Head, Helicopter Systems Division, Defence Materiel Organisation, Department of Defence**

**GILLIS, Mr Kim, General Manager, Systems, Defence Materiel Organisation, Department of Defence**

**KING, Mr Warren, General Manager, Programs, Defence Materiel Organisation, Department of Defence**

**McPHAIL, Air Commodore Roy, Director General, Aerospace Combat Systems, Defence Materiel Organisation, Department of Defence**

**SHARP, Mr Colin, Head, Land Systems, Defence Materiel Organisation, Department of Defence**

**THORNE, Air Vice Marshal Colin, Head, Aerospace Systems Division, Defence Materiel Organisation, Department of Defence**

**TRIPOVICH, Vice Admiral Matt, Chief, Capability Development Group, Department of Defence**

**CHAIR (Mr Bevis)**—I declare open this public hearing on the review of the *Defence annual report 2007-2008*, conducted by the Defence Subcommittee of the Joint Standing Committee on Foreign Affairs, Defence and Trade. The subcommittee, during the course of the day, will scrutinise a number of aspects of Defence operations. This morning we will hear from officers of the department involved in procurement and capability development, and then later in the day we will hear from those involved in recruitment and retention, human resources and pay systems. They are important areas of Defence's activities. They are clearly not exhaustive, and it is most likely that the subcommittee will conduct further hearings next month. The subcommittee appreciates that necessary duties have taken relevant senior officers away from what would have been their appearances here before the committee—in some cases away from the country. We understand that. Even without that we probably would have, as we have in the past, ended up with another day or so of hearings, but clearly in the absence of a number of senior officials we will look to get together at a mutually convenient time next month where those relevant senior officers can also participate.

The first session is dealing with defence procurement, and I would like to invite those members of the department involved in giving evidence to the subcommittee on defence procurement to take their seats. I welcome the representatives. Whilst the subcommittee does not require you to give your evidence on oath, I should advise you that these hearings are legal proceedings of the parliament and therefore have the same standing as proceedings of the respective houses. Would you like to make any opening statements for the benefit of the subcommittee in these hearings?

**Mr Gillis**—No, not at this stage. Noting the shortness of the time available to the subcommittee, I think it is appropriate for you to ask us questions.

**CHAIR**—I guess that in many respects you guys are in the interesting part of the hearing process, because there is always lots of money flowing through defence procurement. The top 30 projects get special mention here and in the Joint Standing Committee on Public Accounts and Audit and get special notoriety with Auditor-General's assessments as well as provision in the annual report. I know there are a number of matters I am keen to pursue, but before I take the chairman's prerogative in kicking off are there any questions that other members of the committee would like to raise?

**Mr BALDWIN**—I ask the people who are involved in intellectual property—the BAE/Hornet upgrade program at Williamstown—to come to the front.

**CHAIR**—It is a matter for the department officers as to who wants to answer, but given that you are going to be asking questions about that there is no problem in having others at the table.

**Mr BALDWIN**—I ask you at the very beginning to provide us with an update on the issue in relation to the contractual arrangements with the contract that was let to BAE and then taken back from BAE because of intellectual property in relation to the Hornet and the contract pertaining to Williamstown.

**Air Vice Marshal Thorne**—The short answer to that is that the contract with BAE was signed last week, so the matter is now settled. When you last examined the issue, of course, there was some uncertainty about whether or not BAE had the intellectual property to sign a contract and there was some toing and froing and some examination of the legal contract behind that. We were able to sign that contract with BAE and L3 as a partner in that contract last week.

**CHAIR**—So there are no outstanding issues of intellectual property rights with Boeing in relation to the F18 and this contract?

**Air Vice Marshal Thorne**—No, there are not.

**CHAIR**—They have signed the intellectual property right over to BAE? I understand that there was an issue—as provided by Boeing—that the carriage of the intellectual property, even though they are in a joint-venture in Canada with L3, did not actually carry through to Australia.

**Air Vice Marshal Thorne**—That was what was reported at the time. As it transpired it appears that when L3, the party that was in coalition with BAE Systems Australia, examined their intellectual property rights they found that they had, for the Australian component, rights in perpetuity. So, it is on that basis. There were some conditions on those rights which have been honoured in the contract that we have signed with BAE. But, no, that issue has not come to play.

**Mr BALDWIN**—Have there been any damages claimed for the delay in the contractual arrangements?

**Air Vice Marshal Thorne**—No, there have not been any delays in the contractual arrangements. We did not suffer any damages. We had interim arrangements that were signed

with both BAE and Boeing to fulfil the work that was needed to be done in that interim period and we will shortly transition to the new contract arrangements.

**Mr BALDWIN**—For the clarity of the whole of the committee, can you actually outline what this upgrade program will contain in relation to that now the contract has been assigned to BAE?

**Air Cdre McPhail**—There are two contracts that have been let recently, and they may tend to get confused. The first one is the one that has just been signed by BAE with L3 as a partner. That covers the structural refurbishment elements of the Hornet upgrade and some of the routine servicing. That is the contract that was signed last week. Boeing has just been selected as the preferred tenderer for a second contract which is the incorporation of electronic warfare upgrades of the fleet. They are the preferred tenderer and we would expect that worked to commence in May. So both BAE and L3 will be working on Hornets and Boeing, if they are successful with the contract negotiations, will work on the electronic warfare upgrades.

**Mr BALDWIN**—Do you know at this stage where Boeing will be conducting that work on the F-18s?

**Air Cdre McPhail**—At Williamstown in the government hangar.

**CHAIR**—I turn to some of the key projects—the top 30 projects, details of which were in the annual report. The air-to-air refuelling was something that we spoke about in the last annual report review as well. Can you give us an explanation of the reason for the substantial variation between budget estimate and actual expenditure and tell us where that project is now?

**Air Vice Marshal Thorne**—The main reason for the difference between budget estimates and actuals had to do with a stop-payment. By that I mean that in contracts like the air-to-air refuelling, we have major stop-payments on critical milestones; if they are not reached, we do not pay beyond that. Broadly speaking, that contract is half milestones and half earned value payments, and when we hit a stop-payment we stop paying both the milestones and the earned value payments. There are a series of stop-payments in that contract, and we have released one of those stop-payments and recovered some of that underspend. We anticipate, however, that before the contract is finished we are likely to encounter other stop-payments on that contract.

On the status of the project at the moment, we need to be careful about which aircraft we are talking about here. The prototype aircraft, which is being put together in Getafe, near Madrid, in Spain, was completed and flight-test ready in December of last year and is undertaking testing in Spain as we speak; it is in flight tests at the moment. The second aircraft is in conversion at the Qantas Airways conversion centre in Brisbane Airport and is expected to be completed in about July, with some additional work probably going through till September. It is our plan at the moment that that second aircraft will then be flown to Spain to join the test program, and we will have a two-aircraft test program through the latter part of this year.

**CHAIR**—To put that into context, with the scheduled program of acceptance of the aircraft and its entry into service, as opposed to the now anticipated acceptance of aircraft, what sorts of delays are we looking at?

**Air Vice Marshal Thorne**—We are anticipating a delay of between six and 12 months at this stage over what was previously anticipated.

**Mr KELVIN THOMSON**—Is it appropriate for me to ask questions about the Seasprite?

**CHAIR**—By all means.

**Mr KELVIN THOMSON**—The Seasprite project was cancelled in March last year. Its problems seem to have centred to some degree on software development. Are there any lessons or do you have any view, given the experience with the Seasprite project, about the management of complex software development tasks?

**Major Gen. Fraser**—The biggest issue for integration, as you quite rightly point out—the biggest task—was understanding the risk and difficulties of integrating a complex software system into an older analogue airframe. On those issues, we started without being able to make that true assessment carried through. Some of these issues will be reported in the ANAO report coming up shortly as well. It was our ability to solve those that faced us with the greatest challenge, both in the tactical system for the combat system and in the flight control system.

**Mr KELVIN THOMSON**—This was a unique project. Does that increase the risks? Do you think that there are issues in relation to projects meeting specifically Australian needs that increase the risks?

**Major Gen. Fraser**—You are right, Mr Thomson. This project was first developed in 1994 and a contract signed in 1997. Since then, and since the formation of DMO in 2000, we have had the Kinnaird review and the implementation of that from 2003 onwards. Indeed, the Mortimer review will strengthen that to make sure that we truly understand what those risks are and, where necessary, still take an appropriate level of risk but make sure that appropriate resources, schedule and cost are apportioned to the risk reduction requirements for the introduction of that equipment.

**Mr KELVIN THOMSON**—In what circumstances do you decide that equipment needs to be customised to Australia or Australianised? What are the criteria for when that is warranted?

**Major Gen. Fraser**—I will take the lead on capability development. Clearly there is a strong push for us to try and take off-the-shelf where we possibly can. If we take the Chinook, for example, we have kept that at US-standard configuration as closely as possible. That has provided us with an aircraft with some modifications specific to Australian airworthiness requirements or to our requirements. For the Chinook, for example, we fitted some hoists to it; the standard US Chinook does not have a rescue hoist. Because we have so few helicopters, we tend to multirole them more than, perhaps, the US might. So we try to keep those sorts of modifications to that level.

**Mr KELVIN THOMSON**—Do you have any other examples of where Defence needs to acquire customised military equipment?

**Major Gen. Fraser**—For some smaller parts, such as crash locator beacons and those sorts of things, we tend to have a slightly higher standard than some other areas. I go back to the

Chinook. In the same year that a contract was signed for Seasprite the UK ordered Chinooks for their special operations as well. Recently reported were the difficulties they had trying to integrate the software into that particular aircraft. Those aircraft have still not entered service, and they are going to demodify them back to standard Chinook configuration because of the certification issues. So it is certification to our standards that is as much an issue for us as it was to the UK to their standards, to make sure that we are quite comfortable in the safety and the flight control for those purposes.

**Mr KELVIN THOMSON**—Here is the final question from me on the Seasprite project. There was a newspaper report back in March last year suggesting that an agreement with the prime contractor meant that Australia could recoup \$40 million from that project. Is that right, or have there been any developments in that regard?

**Major Gen. Fraser**—What we negotiated between command and ourselves was that command would take ownership of the aircraft and equipment to try and resell them and provide us with some funding back. That was subject to US government approval. That US government approval was obtained on 6 February this year, and the transfer was exchanged for bank guarantees on 12 February this year. Command are actively marketing the aircraft and equipment at this point in time, and we have started to get some flow of sale from some of those parts. It is a small amount at this point in time, but we are comfortable that they are at least trying to sell them. We are working cooperatively with command to maximise the best possible sale value, but command is taking the liability and the warranty issues, to rectify the issues that we were not able to bring the aircraft into service for. It was \$39.5 million, just to clarify.

**Mr BALDWIN**—I understand from a newspaper article only a matter of weeks ago that there has been a contract signed for the sale of the Seasprites.

**Major Gen. Fraser**—No, that is not the case. There is no contract yet for the sale of our Seasprites. I am not aware of any others.

**Mr BALDWIN**—It was in one of the US clippings. I think it is called *Defense Industry Daily*.

**Major Gen. Fraser**—They might have misinterpreted the marketing activities and/or the fact that we had gained US government approval and that US government approval was required in order for command to be able to sell the aircraft. That in itself was a major activity because that is not normally provided. There is a rule in the US that prevents the original equipment manufacturers from taking back the aircraft and/or equipment to be able to sell them. So to achieve that has been something that we think is quite useful, clearly, to enable command, in particular, to be able to sell the aircraft.

**Mr BALDWIN**—One of the perennial issues in relation to military acquisitions is a thing called scope creep. How much did scope creep play in the demise of this aircraft?

**Major Gen. Fraser**—With Seasprite the issue was, right from the word go, trying to integrate sophisticated tactical systems and digital flight control systems rather than any change of scope.

**Mr BALDWIN**—I understand the New Zealanders are flying them with analogue systems—is that correct?

**Major Gen. Fraser**—That is correct. It is a standard configuration. Similar to the example I provided on the UK Chinook issue, we ended up going that way versus taking a straight-off-the-shelf issue. Out of the Mortimer review and out of other things, it is certainly driving our higher appetite for off-the-shelf ware that can possibly be done.

**Mr BALDWIN**—Much was made in the media at the time about the age of the airframes. What was actually the problem?

**Major Gen. Fraser**—The issue was just trying to integrate and certify to Australian standards. Our expectations changed, the contemporary standards changed over that period of time, informed by the two major helicopter accidents that we had during that period of time. So the Australian appetite—both the military and public perception—was for a greater degree of certainty about the certification and other issues for the aircraft.

**Mr BALDWIN**—As I understand it, the air frames were rebuilt, the engines were rebuilt—basically, they were stripped right down to every component, checked and rebuilt. So was it more of an issue of software integration, or was it one of structural integrity?

**Major Gen. Fraser**—It was primarily the issue of integration.

**Mr BRUCE SCOTT**—Thanks to Defence for being here this morning. My first question is about the Hornets upgrade. Can you tell the committee which aspects of the Hornet upgrade are affected by the problem of intellectual property and whether the problem has been resolved, and whether it can be resolved?

**CHAIR**—I asked a question about this this morning.

**Mr BRUCE SCOTT**—Sorry I was late.

**CHAIR**—For Mr Scott's benefit, you might give a quick answer.

**Air Vice Marshal Thorne**—You used the words 'Hornet upgrade project'. Really the IP issue had more to do with repair and maintenance of the aircraft, what we call a maintenance and modification project. The issues with that but are now resolved. We signed a contract with BAE Systems Australia and L-3 last week for that maintenance. L-3 was the main provider of engineering services under that arrangement and the IP was under a cloud and they managed to resolve the situation to satisfaction, and Boeing are not opposing that at the moment.

**Mr BRUCE SCOTT**—I want to ask something about the UAV, if I might, the unmanned aerial vehicle. Could you tell the committee why arrangements to buy the UAV capacity for the ADF were terminated? What is the current state of moves to acquire the UAV or is it totally terminated and of no interest?

**Air Vice Marshal Thorne**—Can I clarify whether you are talking about the tactical UAV under JP 129—

**Mr BRUCE SCOTT**—JP 129.

**Air Vice Marshal Thorne**—The reason for contract termination really had to do with lack of performance on the part of the contractor and the subcontractor. We have not terminated the project; we have just terminated the contract. At the moment we are attempting to restart that contract. We are looking at what our contemporary requirements are for that project and whether there is any adjustment needed. Fundamentally, we were reaching a point where the company, Boeing Australia Ltd at the time, and its subcontractor IAI MALAT of Israel were not converging to a solution and we were falling behind at a rate greater than we were progressing.

**Mr BRUCE SCOTT**—How important is the UAV to the ADF and what sort of role do you think it would play when we acquire them?

**Vice Admiral Tripovich**—In my role I am the sponsor for all the projects before they get first and second pass approval. The UAV is applying a very important role at the moment and we are operating with and using and accessing some ally resources in the UAV. They provide intelligence surveillance and reconnaissance in the battlefield. A summary of where we are on this project now, as Air Vice Marshal Thorne said, is that the contract was cancelled. It came back to me to have a close look over our requirements to make sure that the requirements are still valid and if there are any requirements that we needed to change, as a result perhaps of our experience through that contract or contemporary experiences in the field, where we would want to adjust our requirements. Certainly we are taking a very pragmatic approach to our requirements now, having learned a lot through that first contract. We have agreed the requirements now and are working closely with the DMO to be able to get a request to tender out to the industry again, to start the process. I might say that we are working at an accelerated process so that we can get quickly back into contract with the appropriate solution and getting into service. In the meantime we have UAVs in service but on lease and those that we own in the field and so there is no loss of capability, if you like, for current operations.

**Mr BRUCE SCOTT**—So you accelerated the process of looking at how we would acquire one based on our operational needs.

**Vice Admiral Tripovich**—That is right. Government has given a second pass for a particular solution at a particular cost. That solution was not successful, so we will have to come back to government with a new solution and a new cost to get them to give us a new second pass approval, if you like, then go on to contract for a new UAV.

**Mr King**—Following up from Mr Thomson's question as to whether we are learning lessons, I think the identification of the difficulties of JP 129 is an example that we are. We are doing internal reviews to make sure programs are keeping track. This one highlighted that there were difficulties early. In fact, when we looked deeply they would not have been overcome. So, instead of inheriting a program that may be around three, four or five years and then find we had troubles and leave the ADF short of capability, our new processes actually found that there were difficulties. We took proactive action with capability development, the Chief of Army, terminated the contract early and are now moving outside. I think we would like to use that to highlight the fact that we are learning lessons and we are addressing programs' difficulties early.

**Mr BRUCE SCOTT**—Thank you.

**CHAIR**—I appreciate that we are probably traversing the first two listed topics between DMO and capability development, but I think it suits everybody's purposes if we do that. Unless somebody has a problem I am happy to let that process continue. We will deal with it in that way.

**Mr ROBERT**—General Fraser, I wish to ask some questions about ARH, MRH90, the Seahawk replacement and Caribou. Firstly, in relation to the ARH you would be aware that the defence committee visited Oakey and the manufacturing facility and we were reasonably impressed with how things are going. We dealt with slippage issues at the last committee meeting. Are there any other issue that might cause slippage on which the committee has not yet been briefed?

**Major Gen. Fraser**—It is tight schedule for us to achieve the September milestone this year and it is based on a test and certification to finalise the aircraft to hand them over in a complete stage to army for its initial operational test evaluation. As you recall, in the middle of last year we based three aircraft in Darwin and that has been successful. The issue with that and the aircraft in Adelaide is that the rate of effort is not quite as high as we would like to continue the flying rate of effort. No major issues are confronting us. We are comfortable with the contractors. The relationship with the contractor is the result of the resolution of the dispute and the deed of agreement and it has given us confidence in schedule and their ability.

Let me give you an example of the mature reading of the aircraft. In January this year we put a new software load into the aircraft. It used to take three weeks to complete its verification but it took us one sortie of 1.2 hours. Software was taken from France through our software facility based in Australia and it was then put into the aircraft and it performed as predicted. To me that revealed that the aircraft has reached a level of maturity that I would regard as off the shelf. It is now just a matter of keeping up with the work rate in order to achieve the milestones.

**Mr ROBERT**—As some of the integration issues were covered by defence projects, how has the integration of Hellfire and the gun and rockets gone?

**Major Gen. Fraser**—For most we went for off the shelf. However, here we took a United States weapon system which gave us great concern about the issue that was raised earlier by Mr Thomson. We made sure that we resourced and adequately integrated this higher risk concern and it worked exceptionally well. We have now fired 13 Hellfire missiles out to between six and eight kilometres. The most it has been inaccurate at eight kilometres has been 33 centimetres from the centre of target. Wherever the laser is pointed that is where it hits. That integration has gone exceptionally well. Indeed we have cooperated with our French equivalent DGA. We facilitated them to be able to fly and fire the missile from the aircraft. As a result of that information they were able to make an informed decision. They are now going to equip the second lot of their aircraft—40 odd aircraft—with Hellfire as well. That will help us considerably with the software development across a larger pool and the upgrades to the aircraft needed to keep that weapon and the aircraft relevant.

**Mr ROBERT**—Was that 33 centimetres of target over eight kilometres, General?

**Major Gen. Fraser**—That was over eight kilometres.

**Mr ROBERT**—How does that compare with testing of Hellfire on United States platforms?

**Major Gen. Fraser**—It is consistent with wherever the Hellfire sits. Of course I need to be careful with this. However, it is consistent with the weapon system of that missile.

**Mr ROBERT**—Were there any integration issues with the gunner?

**Major Gen. Fraser**—No, the gunner has been outstanding. It is designed as an air-to-air weapon system and the software for that is outstanding. It has been able to prove its testing on the higher speed envelope for the full left and right. As you saw during your visit you can slave it, so wherever the pilot is looking it is slaved to the helmet. That in itself is a significant technology leap for us in the helmet system and for army aviation operations in particular as the helmet is also used for sighting systems and weapons engagement processes. That in itself is above what the others in the world are using in Tiger.

**Mr ROBERT**—How has the army been receiving the rocket array as part of its open system?

**Major Gen. Fraser**—The rockets have an issue. We have not yet completely resolved the rocket issue. We are not satisfied with the efflux out of the rocket and some work has been done to reduce that. We have a testing plan for that in about three months time.

**Mr ROBERT**—I am led to believe by the manufacturer that the helicopter can fly upside down. However, army has assured me that we do not have a plan to do that.

**Major Gen. Fraser**—It is not planned for us to do that normally, no.

**Mr ROBERT**—Nice.

**Mr Gillis**—Mr Chairman, I think it is appropriate to reflect that two years ago the DMO set up a specific helicopter systems division to answer that question about resourcing, ensuring that we have that important capability, which our helicopters required for the ADF. We have a specific division with those resources led by an experienced general in army aviation, and with a team of aviators and senior project managers who are managing that area. The sorts of performances we are seeing now on these new platforms are a testament to that resourcing.

**Major Gen. Fraser**—I concur.

**Mr ROBERT**—General, I believe that the French are going to deploy a helicopter to Afghanistan; is that correct?

**Major Gen. Fraser**—The announcement that France has made is that it is considering deployment but it has not formally announced a deployment of the aircraft. We will wait to see what is to be done. Clearly, that carries resourcing implications and lessons. We are cooperating closely through an army-to-army relationship. Our relationship with France on Tiger development in particular has been excellent. They are continuing to feed us information, as indeed we are to them, on aircraft development. We will wait to see where that goes. Clearly, there are lessons for us if that were to occur.

**Mr ROBERT**—Can I assume, General—which is a dreadful phrase to use—that if the French were to deploy a Eurocopter overseas that obviously you would be leading a team of some sort to closely evaluate how it goes in Afghanistan?

**Major Gen. Fraser**—We have had discussions with France if it does deploy that we would be seeking to gain those lessons and perhaps visit and locate. As you know we have two Chinooks across there serving with our soldiers and performing exceptionally well. We will continue that cooperation with France to gain those lessons as best we can on Tiger operations in Afghanistan.

**Mr ROBERT**—Notwithstanding any commercial in confidence, and if there is, please tell the committee, is France happy for you to take a team over there if indeed it deploys a Eurocopter into battle?

**Major Gen. Fraser**—It is a different issue. It is an army-to-army issue and security aspects would be associated with that. My understanding is that France would be happy to receive that at the appropriate time. Like all of us, I think if you are up for an initial deployment you would be pretty much focused on that. At an appropriate time we will ensure that we get the information. France has offered to provide the information to us.

**Mr ROBERT**—I am happy to move on to MRH90, unless the committee wants to discuss ARH at all?

**CHAIR**—Any questions on transport? You referred to the committee's recent visit to Oakey. I should take this opportunity to thank all those involved. It was a particularly interesting and enthusiastic day for us. The quality of what we saw is exemplified in the sorts of program outcomes that have just been described. Members of the committee and I suspect defence can learn a lot from the high cutting-edge good quality stuff coming out of there—not the sort of thing you normally hear at a defence committee hearing of this kind. We place our thanks as a committee on the record for the work that is being done there.

**Major Gen. Fraser**—Thank you Mr Chairman. I will make sure that I pass that on. Clearly, a lot of people have been working long hours over time to ensure that we develop this capability for the army.

**CHAIR**—You tend to get plenty of brickbats but not too many bouquets in these sorts of areas.

**Major Gen. Fraser**—Thank you, Mr Chairman; it is greatly appreciated.

**Mr ROBERT**—I refer to the MRH90. Last time we met the committee was ecstatic—and I do not use that word lightly—to hear about its second and third customer, that it is first of a type, that it is on time and on budget, and that it is almost a dream project. Can we still say the same about the MRH90?

**Major Gen. Fraser**—For us the MRH90 has been typical for the other countries that are ahead of us Mr Robert. The rate of effort has not been to the level that we would desire, in fact, not to the level that we require to meet the training requirements. We believe that we will still achieve navy's milestone in the middle of next year for its initial operational capability of first

aircraft at sea. At this point in time the army training is behind. The contractor input—I think you were briefed by the chief executive officer of Australian Aerospace, and I found that company to be very open with how it is approaching these issues for MRH90 rate of effort—has some initiatives on offer that we will take to try to restore the rate of effort to what it should be in order to catch up. But at this point in time we are behind schedule for army.

**Mr ROBERT**—Do you have any idea of what the schedule application is, if at all?

**Major Gen. Fraser**—If it continues as it currently is, it will be six months behind schedule for what was to be an April 2011 milestone for four aircraft—a deployable troop of four aircraft for army. Therefore, at the moment we are looking at a September or October time frame. We will take as much action as we can to recover that, but that is where it currently sits, due to the low rate of effort.

**Mr ROBERT**—My understanding is that we have four airframes currently in Townsville. Is that correct?

**Major Gen. Fraser**—We have accepted five aircraft now and they are all in Townsville. There are five and we are about to accept the sixth aircraft. In order to recover some of that one of the things we have done is to deploy the crews across to simulator training. Last time we met I think your question was specifically about being able to use simulators. We are using overseas simulation—it is a generic simulator—whilst ours is being constructed.

**Mr ROBERT**—Noting that the ARH simulator is accredited to the highest level, which means that an hour in the simulator is the same as an hour in the frame itself, is the simulation we are using for MRH90 of an equivalent standard?

**Major Gen. Fraser**—It will be, Mr Robert. It will be the highest level of fidelity, the level 5 level D accreditation that we are working towards.

**Mr ROBERT**—As we now have five airframes working at level 5 aviation, are the soldiers happy with it? Have we learned some lessons?

**Major Gen. Fraser**—The aircraft will be outstanding. We are yet to gain army's confidence with the aircraft. Let me use the analogy of either a Ford or a Holden driver. Once you have been brought up in that way it is difficult to change over to another aircraft or another type when it is brand new. We require it to be performing to the best of its standard and it is not yet there. We will do that; we will gain their confidence by getting them some rate of effort. The outstanding features of the MRH90 will take it past the uses to which we are currently putting our aircraft, with weather radar and with a forward looking infrared system. It has available a large cabin and a ramp. We are yet to gain their confidence but we are working to do that and we need to prove that through the project, and working with the contractor to develop this rate of effort to the level that it should be.

**CHAIR**—Does anyone else have any questions on MRH90?

**Mr ROBERT**—I could move on to the Seahawk replacement, General. Currently, what is the military's province of your role in DMO and what is the military's plan for Seahawk replacement?

**Major Gen. Fraser**—I will ask Admiral Tripovich to answer that question but I will refer to the fleet issue of the current Seahawk. We have taken action to improve part of the Seasprite cancellation to try to improve the rate of effort. We have been successful in increasing the aircraft availability of Seahawk until a replacement is provided, whenever that is to be.

**Vice Adm. Tripovich**—The project is pre-first pass. In the first of what might be a frequent response to you today, unfortunately, we will have to wait for the white paper. Wherever I can I will be able to give you some information. A project will replace the Seahawk helicopter called AIR 9000, Phase 8 which exists in the current DCP. The white paper will have examined the type of aircraft we need and the numbers. As a general response to most of your questions for capability development, following the white paper a new defence capability plan will lay out the projects for the next five years or so, and the details of timing, years of decision, level of investment and number of aircraft will flow from it. We are working fast at a plan to be able to react to that.

**Mr ROBERT**—What is the current plan for the phase out of the Seahawk? What year does end of life happen on the frame?

**Vice Adm. Tripovich**—I think it is around 2016 or 2019, Mr Robert.

**Major Gen. Fraser**—The issue for us is to ensure that we can carry obsolescent management through to that point in time. We have some parts that are more difficult to obtain, which is all the more reason for us to go off the shelf wherever we go if there are some unique parts. Right now we are trying to work through those. An assurance program is under consideration to extend the life of the current components to make a life of type for the Seahawk.

**Mr ROBERT**—On the extension of life through to 2019 is this only a component extension, or is it an avionics upgrade, an electronic upgrade, or an integration of different systems?

**Major Gen. Fraser**—I need to be clear on this as my expression is probably not right. Currently the Seahawk has a life of type through to 2019. In fact it was originally through to 2025. We are looking at things such as the flight control computer and we are trying to upgrade the flight control computer to ensure that it continues in reliability as much as anything else. We are keeping the parts for it and the radar for it up to specification.

**Vice Adm. Tripovich**—Just to make it clear, there is no upgrade project for the Seahawk because of its life of type. As General Fraser described it, it is a capability assurance program to make sure we retain the level of capability in the Seahawk until the end of its life. To do that, as the General said, components will have to be replaced because of their obsolescence. Sometimes, by replacing old with new you get a lift in capability, but it is inherent; it is not your objective, if you see what I mean.

**Mr ROBERT**—Can I paraphrase you, General, to say that defence has no plan to implement a project that will upgrade the Seahawks, apart from those minor upgrades to flight control computers, radar and those sorts of things?

**Major Gen. Fraser**—that is correct, to ensure the level of capability until the end of its life will not be replaced by the replacement helicopter through AIR 9000 Phase 8.

**Mr ROBERT**—How long does a normal replacement helicopter for the navy take from design through to acceptance certification and delivery?

**Vice Adm. Tripovich**—It would vary depending on certain issues. The left-hand of arc obviously is the Seasprite experience and the right-hand of arc would mean that you bought a helicopter or any aircraft or platform off a production line that is already there. I guess the right-hand of arc would be something like the C17 program where we bought an aircraft off a production line—in fact, off a slot that was already in a production line. So we were able to bring it into service very quickly.

**Mr ROBERT**—I am cognisant of the fact that you have only 10 years, which sounds odd in itself.

**Vice Adm. Tripovich**—Kinnaird talked about spending time and effort and, importantly, money, to get your facts right before you go to government and second pass. That is really important. In the bad old days, 10 or more years ago, we went to government to get its agreement before we knew what the requirements were and before we knew what were the costs or the risks. In the old days they would claim that you got approval from government very quickly. But then we were doing a lot of stuff that we should have been doing before we went to government. Now we frontload all that effort and it takes a long time to get to second pass.

The theory is that you have a request for tender or an offer from an FMS case, or a foreign military sales case, and you know the risks, the costs and the schedule, and you have sufficient provision. Theoretically, shortly after the government gives approval you can come back and sign a contract and get going. The decision point has moved further out but the action you have to take to activate the government's approval can happen relatively quickly. Once again, it depends on the maturity of the solution and whether or not any more work has to be done. With the C17 you are literally buying them off the shelf.

**Mr ROBERT**—Can I assume, Admiral, that you remain confident that it will have a process and a capability cognisant of government's approval that will seamlessly move through to a 2019 replacement?

**Vice Adm. Tripovich**—Absolutely.

**Mr ROBERT**—I am happy to move on to Caribou and to AIR 9000.

**Mr BALDWIN**—I have a question relating to Land 121 Phase 4. It was revealed that in October the government gave \$40 million to split amongst three United States consortiums—to AM General, General Dynamics Land Systems; to Lockheed Martin and BAE Systems Holdings Division; BAE Systems of York, Pa; and Navistar. That was to develop nine prototypes—three

from each—for the joint light tactical vehicles. Who in defence made the decision not to include or provide an initial RFP to Australian industry and, in particular, to Thales, given their success with the Bushmaster program to be involved at that stage?

**Vice Adm. Tripovich**—I am responsible for taking the proposals to government. Just to clarify, the government has approved that we participate in the joint light tactical vehicle program, which is a United States program. We have contributed our money to their money and their program has selected those three companies to deliver a number of prototypes for evaluation. As part of the number of prototypes that will be delivered, nine of them will be delivered right-hand drive, for example, for us to test some Australian requirements. But it is part of the entire program. A lot of what we will be doing is testing for the United States, and a lot of what they are doing on their left-hand drive vehicles is testing for us. It all comes under the one program.

The United States program office conducted an evaluation and chose those three contractors to deliver the prototypes. The phase that we are in is purely prototyping to see what will be the requirements. The United States program, in doing its project, will then release a tender and go back to the market. We are leveraging off the considerable investment that the Americans are doing and we are getting the benefit from that. When we went to government no Australian development program was known to us. It was only after the government gave its approval for the joint light tactical vehicle that Thales popped up its head and said, ‘We have been working behind the scenes.’

As a result we have approval to release a request for proposal, and we are in the process of doing the paperwork to see which companies are available in Australia that might be able to perform similar activities in Australia. It is a request for proposal and we will see what proposals come back. When we get the proposals we will go back to government and tell it whether or not there is any substance to these proposals.

**Mr BALDWIN**—Which vehicles in the Australian military are these designed to replace?

**Vice Adm. Tripovich**—The B-class vehicles which I would describe as lightly armoured.

**Mr BALDWIN**—How many seats? What is the seating capacity?

**Vice Adm. Tripovich**—There are various forms from transport that carries about six people down to what I would call a two-seater that carries one tonne of stores. There are various configurations. Basically, there are four configurations at which we are looking.

**Mr BALDWIN**—What will be the requirement of the Australian Defence Force for these joint light tactical vehicles?

**Vice Adm. Tripovich**—Around 1,200.

**Mr BALDWIN**—Given that the former government and this government both championed the quality of the Bushmaster project, did people in defence not consider that it might have been worth talking to them at the same time?

**Vice Adm. Tripovich**—We consulted industry, as we do with all these projects, to see whether or not anything is out there. At the time nothing was being proposed and nothing was on the horizon for us to say to government, ‘An Australian alternative is being worked out.’ Trust me—

**Mr BALDWIN**—With respect, there is no United States alternative; they are developing prototypes.

**Vice Adm. Tripovich**—Correct.

**Mr BALDWIN**—Why did the department of defence not go to Australian industry, which has a proven track record, and ask, ‘Do you have the capacity to build this to design technology, to develop a prototype along the same lines and with the same requirements?’

**Vice Adm. Tripovich**—We joined the joint light tactical vehicle program which had been underway for a long time and there was nothing else on the market. Nothing else was going at the same time. Australian industry did not have—

**Mr BALDWIN**—Did you simply ask Thales or its previous variant before Thales bought it? I do not know what your involvement in the joint light tactical vehicle has been. Did you ask them at any time whether they had the capacity, a design, a draft, or an opportunity?

**Vice Adm. Tripovich**—I did not. I will take on notice your question to establish whether or not we asked them for that.

**Mr BALDWIN**—I would like you to come back to me with information on that. After discussions with people at Thales I am concerned that they were not even approached. The first that they heard about this was the release that came out of the United States declaring that \$40 million of Australian money had been invested in a United States prototype project. Are you considering providing comparable funding to Australian industry to develop its prototype so that it can be on a level footing?

**Vice Adm. Tripovich**—We are awaiting our proposals but it is certainly something that we would consider. Trust me: if the proposal—

**Mr BALDWIN**—Hang on, I am the politician; I am the one that you should trust.

**Vice Adm. Tripovich**—As long as you say, ‘Let me reassure you.’ Let me reassure you that if proposals come back that would allow an industry involvement we will take that back to government. It would require money to facilitate it and that is something we would be recommending to government. However, it is for the government to decide whether or not to do that.

**Mr BALDWIN**—Given that the Bushmaster program has now been acquired by the Dutch—I think the British have them under order and I am not sure who else—surely there was an opportunity for such a prototype to be developed and perhaps we could have sold that to the Americans.

**Vice Adm. Tripovich**—With respect, it would be up to Thales to make that decision, Mr Baldwin. The important thing is that now that we know there is an opportunity, we are moving quickly to get a request for proposal out and to get industry to tell us what it can do.

**Mr BALDWIN**—When did those in charge of the project determine that there was an Australian capability?

**Vice Adm. Tripovich**—One of the senior directors from Thales came to my office and gave me a rough sketch outline of a proposal on which he had been working.

**Mr BALDWIN**—When was that?

**Vice Adm. Tripovich**—Maybe a couple of months ago; in that sort of time frame.

**Mr BALDWIN**—When does the RFP go out?

**Vice Adm. Tripovich**—We are aiming to get it out by the end of the month.

**Mr BALDWIN**—Just so that I can be assured, looking at Australian defence industry, there will then be an opportunity for those that put in an RFP that is successful to attract financial support from the government for the development of their prototypes?

**Vice Adm. Tripovich**—We will look at the proposals when they come back, but I imagine that if those proposals required some financial contribution to enable them to be fairly developed I think I would be making that suggestion.

**Mr BALDWIN**—Would you consider it to be a bit of an unlevel playing field if we are providing \$40 million to the United States to develop prototypes at the expense of Australian jobs and industry if we do not provide comparable funding to Australian industry to develop its prototypes?

**Vice Adm. Tripovich**—I think a level playing field is a good way to describe it.

**Mr BALDWIN**—Sorry?

**Vice Adm. Tripovich**—I think it is important to have a level playing field. As I said, depending on what comes back in the proposals, we will consider them and make some recommendations to the government.

**Mr BALDWIN**—Just so that I am clear, it is for around 1,200 or 1,300?

**Vice Adm. Tripovich**—It is 1,200 to 1,300, yes; it depends on the combination.

**Mr BALDWIN**—Is there basically a one tonne or two tonne capacity vehicle?

**Vice Adm. Tripovich**—The vehicle is designed to carry loads. It is designed to carry one tonne.

**Mr BALDWIN**—Basically, it is a replacement for the Land Rover?

**Vice Adm. Tripovich**—That is correct.

**Mr BALDWIN**—Are there specific blast deflection requirements?

**Vice Adm. Tripovich**—They will have to meet contemporary requirements from our lessons learned in the Middle East.

**Mr BALDWIN**—How many kilograms of explosives in an IED will they be required to be able to withstand?

**Vice Adm. Tripovich**—It is described in a standard NATO standard. I do not have the precise details in front of me, but it not as heavy as you would imagine a heavy armoured vehicle to be.

**Mr BALDWIN**—I understand that the Bushmaster has to be able to withstand 12 kilograms of explosives and the comparable measurement of a vehicle is one tonne of vehicle weight for one kilogram of explosives. I also understand—and I ask you to confirm this for me by taking this question on notice—that this vehicle has to be able to withstand seven kilograms of explosives; therefore, it will weigh in the vicinity of seven tonnes.

**Vice Adm. Tripovich**—I will check that in the break and get back to you.

**Mr BALDWIN**—I look forward to your comments.

**Senator O'BRIEN**—You outlined certain steps to the project and you referred to the decision making to enable you to engage in the project with the United States. When the decisions were taken for those steps and the timeline subsequently there was an engagement with Australian industry in relation to a similar—

**Vice Adm. Tripovich**—It is probably best if I obtained those statistics in the break, Senator.

**Senator O'BRIEN**—I am happy for you to do that or to take that question on notice.

**CHAIR**—After the break we might look also at one of the issues that I flagged in correspondence with the department about how we go about identifying Australian industry capability. Mr Robert had a further question that might involve General Fraser.

**Mr ROBERT**—We can finalise the Caribou and then come back to the issue of armoured fighting vehicles. I believe that the Caribou is being withdrawn from service some time this year? Is that correct?

**Air Vice Marshal Thorne**—That is correct, by December 2009.

**Mr ROBERT**—What is defence's plan to take up the slack for the capability loss?

**Air Vice Marshal Thorne**—There is a plan for an interim light transport capability—the lease of five B350 King Air aircraft. Obviously that does not completely replace the Caribou's capability and, in time, the AIR 8000 Phase 2, the light tactical aircraft, is intended to do that.

**Mr ROBERT**—Are the B350s short take off and landing aircraft?

**Air Vice Marshal Thorne**—No, it is not. I have some statistics with me which are 3,300 odd kilometres, and 35,000 feet maximum cruise speed at 578 kilometres an hour. It is quite a capable light transport aircraft, mainly for passengers and not for cargo.

**Mr ROBERT**—Can it take a tractor?

**Air Vice Marshal Thorne**—No, it cannot.

**Mr ROBERT**—Can it land on all the airstrips in the Torres Strait?

**Air Vice Marshal Thorne**—I would have to take that question on notice, but I would imagine so. I think the main difficulty it would have is high altitude short strips in Papua New Guinea and the like.

**Mr ROBERT**—So it would struggle with the Fogey airstrip in Papua New Guinea?

**Air Vice Marshal Thorne**—Yes.

**Mr ROBERT**—Can it land on all airstrips on which a Caribou can land at ground level?

**Air Vice Marshal Thorne**—No, it would not.

**Mr ROBERT**—So it will struggle with things like Mabuiag Island and places such as that? I am cognisant of the 51 FNQR uses of Caribou to move troops and equipment, tractors for islanders, and mobile mammography machines in support of medical work up north and so on?

**Air Vice Marshal Thorne**—Yes. As I said before, it is not a direct replacement for all the capabilities of the Caribou. As you know the Caribou is a unique aircraft. That is why it was introduced in 1964 and it has taken this long to work through anything like a replacement.

**Mr ROBERT**—Have you identified exactly what capability gap we will lose with the withdrawal from service of the Caribou?

**Air Vice Marshal Thorne**—I will have to defer to the Chief of Air Force for that.

**Mr ROBERT**—Obviously there are things that we now cannot do. It will be out of service.

**Air Vice Marshal Thorne**—Yes. I would have to defer that question to the Air Force. However, I make the comment that the Caribou capability was costing us considerable amounts of money for what was not a considerable amount of aircraft capability. Currently, we are flying 13 Caribous. If I look at the average statistics of serviceable aircraft I find that we were getting,

on average, about three of those serviceable. It really is the FJ Holden of aircraft. Getting them serviceable was an issue. In theory, yes, they are very capable aircraft. They are capable of getting into some of those short strips, but very few of them were available to fly on a daily basis, for what was a large sustainment investment.

**Mr ROBERT**—I move on again to light armoured vehicles.

**CHAIR**—Before you move off the Caribou, I have a couple of questions about them. I appreciate the limitations of the Caribou. It has been in the process of replacement for at least the past 15 years, and I suspect even 20 years or more. I am trying to figure out how a King Air B350 will replace any of the activities undertaken by the Caribou. Looking at the B350 on the screen I can see that it is a comfortable enough executive passenger jet.

**Mr ROBERT**—It cannot carry a tractor.

**CHAIR**—No, it cannot carry a tractor but I see that it is used for some training within the RAAF. But why was it selected? It looks like a low-entry executive turbo-prop aircraft that probably seats only 12 to 16 people.

**Vice Adm. Tripovich**—I was right on the periphery of that discussion, you might say. There are issues of lift, which Mr Robert has identified, and there are other issues of training, continuation training, maintaining the skills, and the aircraft maintenance force. I know that they were all considered. It is probably best if after this session we were able to provide to you a briefing or a document from the Air Force to explain the whole rationale. Would that be acceptable to you, Mr Chairman?

**CHAIR**—I would appreciate that. Those of us who have followed this debate for some years comprehend the efforts for 15 or 20 years to identify an aircraft. A platform that would do what the Caribou was able to do when it was fully serviceable is simply not out there in the marketplace, not as a fixed wing, or in any form. I understand the dilemma of trying to replicate the Caribou, but I do not understand what we are going to do with these aircraft that will not fill any of the roles filled by the Caribou.

**Vice Adm. Tripovich**—Following my leave Air Vice Marshall Thorne said that the economics of sustaining the Caribou were becoming a problem. We have a project—

**CHAIR**—That is not the question that I am asking. I appreciate that the Caribou has been band-aided as much as it can be after successive programs to find replacements. Successive governments have not been able to come up with any options. I am not arguing, but others may, that we should be putting more band-aids on the Caribou to try to extract another ounce of blood from it. I am trying to comprehend what we are doing to fill the gap. I am having trouble comprehending what you are telling us, that is, that this B350 aircraft will somehow fulfil some of the tasks that the Caribou was listed to perform. I am keen to know what they are because it does not seem to me to have the attributes to fulfil many or any of those tasks.

**Major Gen. Fraser**—I might be able to help. For some years now the army has been leasing three B350s. Sometimes we have used them for 51 FNQR and for some other support tasks. Clearly, they do not fulfil the role performed by the Caribous, but we have been using them as

support for troops. We have also used them for some more classified equipment that we have been carrying on board for some of the sensor systems, camera systems and evacuation. What it offers over Caribou is speed and range, which has been terrific, but it does not have a short landing capability, so there are some strengths but there are also some negatives. However, we have been using them in the army for the past seven or eight years.

**CHAIR**—Presumably only personnel are being carried; you would not be putting cargo or equipment in them?

**Major Gen. Fraser**—Some, but nowhere near what you would normally associate with a Caribou task, that is correct. So Chinook and helicopters have been picking up some of that role in some areas, but clearly it is not quite as quick as Caribou. In some circumstances it does not quite have the range, unless you are carrying the extended fuel range systems in Chinook. The Chinook has a similar sort of lift capacity and we have used it in some cases for that tasking.

**CHAIR**—We will take you up on your offer. If you can provide additional information either today or subsequently that would be appreciated. Mr Robert had another question.

**Vice Adm. Tripovich**—Mr Chairman, it is probably best if I take that question on notice and I will provide you with a document after the session.

**CHAIR**—That is fine.

**Mr HALE**—I refer to the joint tactical light vehicles. Given that the IEDs are a major feature of the ADF's experience in Afghanistan, could you tell the committee about the ADF's current level of preparedness in this respect? How well are Australian troops protected in current military vehicles?

**Vice Adm. Tripovich**—I would be straying into areas that are not my responsibility so I will talk about this generally. They certainly are a threat in the region. We have seen enough of the damage that they have caused. The Bushmasters are performing magnificently over there and, as Mr Baldwin said, we have seen the benefit of having great vehicles like that. The lessons that have been learned importantly have been figured into Land 121 Phase 4 requirements to ensure that life protection is inherent in the vehicle. As I said, I will obtain the information for you.

**CHAIR**—We will stay with armoured vehicles for the moment.

**Mr ROBERT**—I refer to the Land 106 M11 upgrade and ask: Where are we up to with the full upgrade of the M113s?

**Mr Sharp**—Mr Robert, the original program for M113s contracts, the latest contracts that were done in 2002, had some technical problems. We have overcome those problems and we are now into the full production phase with BAE Systems, which took over the contract from Tenix Defence Systems. We were behind with the technical problems. Before we went into full production we were a year behind, which has been well canvassed in the public.

We are now looking at clawing back a year of that schedule and the company is committed to delivering all the 350 vehicles by December 2010 in accordance with the original contract,

which is a terrific effort for the project and the company. Usually when you get that far behind in a project you do not deliver; that lag position remains. So we have done pretty well. At the moment the company is behind its planned production rate; it has had capacity problems at its Bandiana facility. However, we have seen it establish parallel facilities at Williamstown in Victoria and also in Adelaide at its Wingfield plant. It is doubling its rate of hole stretching and it has the capacity to put the assemblies together at Bandiana in Victoria, so we are watching.

This is still a high-risk program, but the company is committed to delivery of these 350 vehicles by December 2010, in accordance with the original contract. There are further orders under the enhanced land force of another 81 vehicles and they are due to be delivered by December 2011. All indications are that that program will be delivered in accordance with the contract timetable. In any event, the production rate at which army can receive the vehicles is ahead of that schedule. Referring to where army will put the vehicles and conduct the training, we are still ahead of that schedule.

**Mr ROBERT**—By the time the schedule is finished and by the time all 431 are delivered, will that upgrade our entire fleet of vehicles?

**Mr Sharp**—Yes, it will. Often there is confusion about what is the entire fleet. The original M113A1 that was introduced in the 1960s was around 776 vehicles. The project for the upgrade was initially to do 350 vehicles under the current contract. Under the enhanced land force there are an additional 81 vehicles. Yes, it is fulfilling the full requirement in its seven variants, but it is not the original 776.

**Mr ROBERT**—Can I assume that the other 300 have just been phased out or chopped up?

**Mr Sharp**—There has been damage, the hulls have been used for the upgrade of the vehicles, and parts are being used for the upgrade of the vehicles, yes. The rest of the hulls will be disposed of.

**Mr ROBERT**—What is Defence's plan to replace the M113 in time?

**Mr Sharp**—Perhaps I can hand back to Admiral Tripovich.

**Vice Adm. Tripovich**—Once again the white paper is examining our future requirements. We can expect to see projects in the defence capability plan, or at least the capabilities talked about in the white paper that will replace—

**Mr ROBERT**—I am keeping score of how many times you say 'white paper', Admiral.

**Vice Adm. Tripovich**—I am sorry. I know that after the white paper is out I will not be able to say that.

**Mr ROBERT**—Let us move on to 112, which is the ASLAV. How many ASLAVs do we currently have in service?

**Vice Adm. Tripovich**—We have 257.

**Mr ROBERT**—Do not go too far admiral! What is defence's plan to replace the ASLAV, either to upgrade it or to replace it in time?

**Vice Adm. Tripovich**—Upgrade projects are already in place.

**Mr Sharp**—The capability of the ASLAV has been progressively upgraded with remote weapon stations contacts, ball liners and bar armour systems put into 59 that were initially deployed to the MEAO to enhance the protection. We are proposing to look again at the armouring of the ASLAV as a further in-life upgrade, I suppose. I do not want to go into too many details because we have not formed a contract and we have not gone out to make a decision. It is very much within the scope of capability development and the government's decision.

**Vice Adm. Tripovich**—Once again the longevity is a constant annual process anyway, but more specifically in a white paper year. On an annual basis we examine the suitability, durability and life of type of all our platforms in the ADF. That determines the planned withdrawal date and it helps to inform the adjustments you need to make in the timing of projects in the DCP, their start, the delivery of the new capability and the requirements. Once again, I have to say that all will be clear, hopefully to both you and to me, when the white paper is out and the subsequent DCP will have the timings. The next time we meet I will be able to give you a lot more information.

**Mr ROBERT**—What is the current end of life of the ASLAV?

**Mr Sharp**—I believe it is 2020. I can get back to you on that, but I believe it is 2020.

**Mr ROBERT**—Can you give us a brief explanation of Land 121, the Project Overlander?

**Mr Sharp**—A brief explanation? Yes, Mr Robert.

**Mr ROBERT**—That does not include 'white paper'.

**Mr Sharp**—It is a complex project. Initially it was a \$3.1 billion project to replace all of army's light, heavy, medium vehicles, trailers and modules—some 12,000 pieces of kit. It was divided into three segments—three RFTs for the heavy medium, the light lightweight capability, and the trailers. The light lightweight segment RFTs are on track and the heavy medium and the trailer segments are going to plan. The heavy medium ran into a glitch and it is about a year behind.

The glitch was that, basically, industry could not provide the vehicle that they said they would in the tender, and subsequently the scope could not be met by the industry bid. So there were two aspects there. We had to adjust the scope after testing in the market. The selected company is now coming back with proposals to meet that program and we are assessing those bids.

**Mr BALDWIN**—The contract was with Stewart and Stevenson in the United States, was it not?

**Mr Sharp**—Yes, it was.

**Mr BALDWIN**—Was there scope creep on that from what we originally asked them to tender on, or did they put in a bid that was never going to comply from the very beginning?

**Mr Sharp**—I do not think I can answer that question because I do not really know.

**Mr BALDWIN**—If you could find out and inform us that would be good.

**Mr Sharp**—Yes, I will do that; I can give you a full brief. However, I want to say that it is not quite that simple; it is not a black and white issue.

**Mr BALDWIN**—It is amazing that someone would spend so much money putting in a tender if the tender was not going to comply from day one. Then the issue was that defence should change the specification requirements and it could not comply. However, that is a totally separate issue.

**Mr Sharp**—That is not what happened.

**Mr King**—Mr Chairman, could I be excused for 15 minutes? I have been asked to attend a meeting. I note that you are looking at AEW and C and AWD, and I can handle those when I come back.

**CHAIR**—If there are any matters that are your responsibility I am sure someone will tell us, but there are certainly a number of issues that we have not touched on—the submarine escape facilities, the JSF, the AWACS and the Wedgetail.

**Mr King**—I will be only 15 minutes.

**CHAIR**—That is fine; we understand. We look forward to your return.

**Mr Sharp**—To continue, this is within the Kinnaird process. One of the good things about the Kinnaird process is that all these things were found between first and second pass and we could take the decision to government. In testing the market we expect companies to position themselves at either a cost or a capability trade off. It is difficult for companies and it is difficult for the requirer when they are going for a whole new capability. This is a complex project; it is about the modules and the module fit and there are many variants within each sector.

To get specific, when a company bids it has to position itself to trade off and to provide the most capable vehicle at the least cost. In that capable vehicle there is a trade off between numbers and capability. Again, companies are positioning themselves to say, ‘I can provide you with a very capable vehicle and fewer numbers of them. I can provide you with a lower capability or at least I can meet the essential requirements. It is a lower cost and you can get more of them.’

**Mr BALDWIN**—As I understand it, and correct me if I am wrong, the issue was that there was a change in the ballistic protection and the motor vehicle with the required levels of ballistic protection were not able to carry the weight of the ballistic protection and still perform. That specification changed after the contract was let.

**Mr Sharp**—The contract was never let; that was the thing about the Kinnaird process. We did not get to contract with them. In the testing of the vehicle the vehicle did not meet the requirements that we wanted. Subsequently, in looking at the re-tender, the ballistic protection requirements had moved on with the threat in the MEAO and capability said, ‘Now is an opportunity to re-look at the heavy medium and recast that scope.’ It is not a linear process.

I think we are quite proud of the ability of the DMO—or at least I am—to be able to re-position itself without prejudice to the contractors to say, ‘The capability requirement is moving and we will take every opportunity in the Kinnaird process to deliver that high capability.’ I recognise the difficulty of companies in positioning in these complex projects to read the messages of cost verses capability and where we are putting our weight.

**Mr BALDWIN**—Is there not a third factor in that, not just cost capabilities but creep?

**Mr Sharp**—‘Creep’ is a pejorative word. If you are talking about an—

**Mr BALDWIN**—It is an ever-evolving specification.

**Mr Sharp**—In this case I understand exactly what you are saying. It is different from the position that you might be in where someone says, ‘Let us get a project into contract and while we are negotiating it we should increase the capability at that point.’

**Mr BALDWIN**—Let me give as an example the Bushmaster. I followed that from the early days. In a recent trip to Bendigo I saw the original Bushmaster prototype that was approved, which looks nothing like the Bushmaster that is currently being used. IED ballistic protection was not an issue. After seeing some of them being blown to pieces I am thankful for the level of protection that they afford. When you look at it from an industry point of view you find that, when you keep changing the specification, sometimes that original frame will not carry the load, which I understand is the issue with the Stevenson vehicles.

At times an industry player might not have the capability, despite having done all the work, the preparation, the costing and the tendering. What compensation is paid to those people who have spent considerable amounts of money but who can no longer be involved in a project, yet they were given an indication that the original product that they submitted was okay, that it was suitable and that it met the specifications? However, then you changed those specifications.

**Mr Sharp**—Sadly, that is not the case, so we did not have to get to the point of compensation in that case. In the case of tenderers who were invited back to look at the new requirement after the first round, that is not scope creep. That is what I was distinguishing between in my first answer. The creep part of scope creep is about bad practice—putting out a requirement and then in the negotiating phase increasing the requirement beyond that tolerance so that a company has to increase its costs and you then change the project approval or whatever.

That is not what happened in this case; the vehicles did not meet the specifications. After that, capability looked at what could be met and what had to be met. So it was not creep; it was a question of, ‘This is what our requirement is after we have tested the market and seen what can be provided.’ We have now gone back again.

**Mr BALDWIN**—I have to tell you that that seems at odds with the press releases put out at the time by the Minister for Defence.

**Mr Sharp**—You will have to remind me of the question.

**Mr BALDWIN**—I do not have them with me but I clearly remember the context of them. The contracts were let, the minister had to step in and he cancelled the contracts because Stevenson did not have the capability to deliver the product. The minister, therefore, had to cancel the contracts.

**Mr Sharp**—Mr Baldwin, I will have to take that question on notice and obtain those press announcement. I will provide you with a statement of that when I can explain it.

**CHAIR**—Some of the matters about which you have been talking remind me of an exchange during the hearings last year with Mr Gumley. This might be something that we want to pursue with DMO or perhaps with Mr Gumley when he is available. We must ensure that there is a clear paper trail that identifies the requirement of the customer, that it is clearly understood and agreed with DMO in advance of these wheels turning. If there is to be some adjustment it should be quite clear what that adjustment is, why it is being made and what are the consequences of the adjustment.

During the hearings last year I remember some discussion around that point. I am not sure whether it is appropriate now to get some further clarification on that policy, but I am mindful of the fact that Mr Gumley is unable to be here today and it might well be something that the committee wants to engage in directly with him. If anyone present has any thoughts about that I think it goes to the broader policy question.

**Mr Sharp**—Let me clarify this and put it in simpler terms. There are a large number of specifications on these vehicles, and rightly so, to discriminate between contenders and to settle the requirement. They are graded as essential, important and very important. When bidders come back they have a range of capabilities that they can offer. Bidders might be strong in some areas but they might not comply with others. In the negotiation period it becomes a matter of cost. In the initial assessment there was no scope creep. That is what I want to get across.

Subsequently the scope changed quite fairly and companies have been re-bidding on that scope. But it became clear that the vehicle that was tendered at the cost it was tendered gave it an advantage. In a large number of cases it did not meet the requirements that we wanted. To do so, the costs were adjusted up significantly, which made it necessary to go back to government and to say, 'This is not the solution that we want.'

**Mr Gillis**—Mr Chairman, I think it is important to state that this is the Kinnaird process working. We did this test and evaluation; we have the tenders in; we have evaluated the tenders; and we found that they did not meet the requirements. We then said to the tenderer, 'No, we will not progress.' That is not what we were doing 10 or 15 years ago. We would probably have selected somebody and we would then have found out what was going wrong. This process is working.

Just to reflect on what Mr Baldwin was saying earlier, this environment of vehicles is probably one of the most sensitive in respect to operational requirements that we have across the ADF at the moment because of the IED threat. It is changing daily and weekly. We have to be cognisant of that environment, of scope requirement change, or contemporary requirements. Those grid requirements are changing to meet the support of the soldiers in the field.

We believe that those requirements are good requirements and that is why we work closely with capability development to ensure that things that are changed are changed in a structured and logical way after negotiations have occurred with industry.

One of the things with which we were so successful with Thales and the Bushmaster is that the changes in the evolution of the Bushmaster were done in consultation with Thales. Thales responded very well in making those changes. We have now reached the point where we have world's best practice in theatre vehicles—not the vehicle that we had—

**Mr BALDWIN**—It seems to be a front-line contender for a joint light tactical vehicle.

**Mr Sharp**—On the Thales vehicle, which was the ADI vehicle at the time, you have to remember that at that point we coaxed that project through. It was won by ADI in both the manufacturing and support project. The prototype that was tested could not be developed by that company and it was significantly delayed. It is years behind its original project. We nursed that through and we moved with the requirement with the company. In recent times Thales has a mature vehicle in its export market. They understand the technology and they have mature production. They are innovating without side of defence money, and we are cooperating hand in glove with requirements to develop that vehicle in concert with other countries. That is a success story, but there was a difficult gestation period with that vehicle.

**Mr BALDWIN**—That is because the original concept that was asked for and what was finally asked for were totally different.

**Mr Sharp**—It is not because; that is what happened.

**Mr BALDWIN**—Yes.

**Mr Sharp**—The vehicle that was required could not be developed by that company at the time.

**Mr BALDWIN**—By Perry Engineering?

**Mr Sharp**—By ADI. They had a prototype that we accepted. We went through the ballistic testing but the company could not produce it.

**Mr BALDWIN**—Did the requirement not change from the initial RFT or RFP to the ballistic testing stage?

**Mr Sharp**—No.

**Mr BALDWIN**—All right.

**Mr Sharp**—We have moved on to where it is a capable vehicle because of the production capability maturity of the company.

**CHAIR**—We might look at some of the other platforms. Because of Mr King's absence I am not sure whether or not we are in a position to talk about Wedgetail. Give me advice.

**Mr Gillis**—Wedgetail and AWACS are the two issues that Mr King will be dealing with. We expect him back within five or 10 minutes at the most.

**Mr ROBERT**—Mr Gillis, you indicated that the current focus on vehicles is to face the threat of IEDs. I am cognisant of the fairly long lead-in time for projects. One of the things on which we need to focus is the next threat. What is the next threat, considering the fact that we are already facing IEDs? I invite comments from Brigadier Nikolic because of his experience overseas in Afghanistan. Currently we are facing an IED threat primarily because of our service in the Middle East. I think that the Bushmaster is an outstanding example of a vehicle that is well geared for that, although it was not primarily, and our helicopters need to be geared for the future. In the view of capability development what is the next significant threat for which our vehicles, and indeed our aircraft, need to be prepared?

**Vice Adm. Tripovich**—Clearly, I cannot go into anything classified, and we should not do so. Let me reassure you that, together with our allies in those theatres, looking as far as we can to try to predict what the enemy might do, the role of intelligence is really important. That is a much shorter cycle than our ability to provide a hard answer for it. It takes a long time to upgrade a vehicle. This year with the white paper we are really focusing on that, obviously so that we can inform the white paper and inform a defence capability plan. I will not go into what might be the next threat other than to reassure you that we constantly try to deal with the next emerging threat.

One of the advantages of the current enemy force is that it can move very quickly because it is using asymmetric techniques. To return to the generic capabilities, whether it is IED or future new solar technology, we have to predict where industry, technology and science are going. There is a great role for DSTO in this, along with the intelligence community. We are seeing where science and technology can go to counter that threat and then being able to get a project lined up and in service in time to meet it. It is trying to be ahead of the arrival of the future missile, if you see what I mean. It is a constant cycle.

**Mr ROBERT**—Who can best answer questions on rapid acquisition—the rapid acquisition project within DMO?

**Vice Adm. Tripovich**—That particular project?

**Mr ROBERT**—My concern relates to the M14 short barrel for the SAS. On an SAS visit they expressed some concern to the minister, or to the parliamentary secretary at the time, the Hon. Greg Combet, that they had requested short barrels for the M14. When we met with them it had been 18 months and only 14 had been delivered. My understanding is that it was a MOTS product; it was a military off the shelf product.

**Mr Gillis**—I do not have that data with me.

**Mr Sharp**—Mr Robert, I will have to take that question on notice. I do not have data for the M14.

**Mr ROBERT**—That is fine. On face value—and I could be wrong—my understanding is that there was a rapid acquisition request and I believe that in the early days everyone was immensely impressed with it. Projects were delivered rapidly and net specifications for equipment were delivered quickly on the ground. My understanding is that as more and more requests have gone in perhaps the rapid acquisition capability has been bureaucratised. However, I am only surmising. It would be good to know what rapid acquisitions are on the table right now; exactly how long it has taken for each one from the request to delivery, with a specific emphasis on the M14 short barrel.

That special force indicated that it had been waiting for 18 months for a short barrel, only 14 had been delivered at the last defence visit, and it is military off the shelf. Obviously we grabbed an M14, looked at the short barrel versus the long barrel, chucked on a silencer, and the weapon started to grow and grow. The longer the weapon is, the more difficult it is to get around the corner and shoot someone. It would be good if we could get information on the M14 and, specifically, the other rapid acquisition projects. Exactly how long is rapid acquisition taking at the moment?

**Mr Sharp**—I can do that. The rapid acquisition process and support to operations are our highest priorities in the inland systems division and the DMO. We put through a lot. I would not say that it was bureaucratised because often the requirement is very clear. It is an identified materiel solution, it is operationally urgent and we can go straight for it. The only obstacle of which I am aware is that sometimes the unit thinks it has an approved requirement, and it is not approved. It might have gone through the system but it is an army requirement and an army decision to ensure that it really wants that.

The next step is government approval and funding for that rapid acquisition. Finally, the only hold up is the provisioning lead time. Sometimes these items are much sought after by the United States and they are not available to us in the production run, in which case we go FMS if it is the United States, or some other mechanism to ensure that we can get onto that production line. Usually that is successful. I will certainly come back to you with that information.

**Proceedings suspended from 10.30 am to 10.47 am**

**FRASER, Major General Tony, Head, Helicopter Systems Division, Defence Materiel Organisation, Department of Defence**

**GILLIS, Mr Kim, General Manager, Systems, Defence Materiel Organisation, Department of Defence**

**KING, Mr Warren, General Manager, Programs, Defence Materiel Organisation, Department of Defence**

**McKINNIE, Ms Shireane, Head, Electronic Systems Division, Defence Materiel Organisation, Department of Defence**

**ROBINSON, Rear Admiral Boyd, Head, Marine Systems Division, Defence Materiel Organisation, Department of Defence**

**THORNE, Air Vice Marshal Colin, Head, Aerospace Systems Division, Defence Materiel Organisation, Department of Defence**

**TRIPOVICH, Vice Admiral Matt, Chief, Capability Development Group, Department of Defence**

**CHAIR**—I believe that there are answers to some of the questions raised before morning tea. We might go straight to those if we can.

**Vice Adm. Tripovich**—Returning to the questions that were asked concerning the Land 121 Phase 4 and the joint light tactical vehicle program, I hope that I have all the answers for you. On the subject of the size of the vehicle, depending on the brand, they are around seven tonnes in weight and their carrying capacity, depending on the variant, will be between one and two tonnes. Referring to the number of people they carry, we will be seeking four variants—a command variant which has four people and an enhanced commander control suite; a reconnaissance vehicle which carries six troops and limited cargo for a reconnaissance patrol; a liaison vehicle, which is like a utility vehicle, which carries four troops and limited personal cargo; and a utility vehicle which I will call a heavy lifter, which is two troops and one to two tonnes of cargo, depending on the brand.

I was asked also about the timeline. In October 2008 the government gave approval to go to the Thales JLTV program. On 16 March 2009 the director general of land development—one of my director generals—received an email from Thales saying that they would like to brief him about an idea that they had relating to the Land 121 Phase 4. As is subsequently known, they came and talked to us and provided us with an unsolicited proposal. That resulted in us looking at the potential for having a formal request for proposal and, as you know, that process is about to get underway.

**Mr BALDWIN**—On the day that you raised it publicly on 9 March it would not have had any bearing on the fact that Thales had not been invited to be involved in an RFP?

**Vice Adm. Tripovich**—An RFP has not yet gone out.

**Mr BALDWIN**—They had not been invited to be involved in a program at all. It was only after we raised it publicly and it was listed on 9 March in issue No. 51 of the Australian Defence Magazine.

**Vice Adm. Tripovich**—I take issue with that because in the lead-up to going to government on the Land 121 Phase 4, as is always the case we conduct discussions with industry, we do market surveys and we have discussions at various trade shows. I was at the land warfare conference that was held a few months before.

**Mr BALDWIN**—In Brisbane.

**Vice Adm. Tripovich**—After conferring with my staff Thales did not approach us and did not indicate at the time that they had any program, prototype planning, concept development or thinking underway. They certainly did not raise the issue with me.

**Mr BALDWIN**—My question to you was whether Defence had been proactive in going to Thales and asking them whether they had any designs or concepts to fill the Land 121 Phase 4 joint light tactical vehicle option?

**Vice Adm. Tripovich**—I respectfully put it to you that our engagement with industry in the lead-up to that gave them plenty of opportunity to raise that issue. We had open and frank discussions with Thales and other companies here and overseas about the options for Land 121 Phase 4. Nothing was revealed to us. They did not come up to us and say, ‘We could develop a new vehicle.’

**Mr ROBERT**—We spoke earlier about the Seahawk replacement.

**Vice Adm. Tripovich**—Just to finish, the last question that was asked was about blast protection. I have confirmed that the standards that we specify are classified, so I cannot give you that. But blast protection is an important element of this replacement vehicle.

**Mr ROBERT**—Referring to the Seahawk replacement, you indicated that there would be no future upgrades, apart from flights, computers, radar, and some other small things?

**Vice Adm. Tripovich**—And a capability assurance program.

**Mr ROBERT**—Am I right in assuming that our current Seahawk has an anti-submarine and anti-ship capability?

**Vice Adm. Tripovich**—It does not have an anti-ship missile, if that is what you mean? It has radar, so it can be used for surface surveillance and it can provide targeting to platforms that have weapons to fire at a surface contact. It can deploy sonar buoys and receive information from those sonar buoys to detect and track sonars, and they carry torpedoes that they can drop on a submarine on a contact. With information from the helicopter anti-submarine, submarine contacts and surface contacts can be transmitted back to the ship for it to combine that with the ship’s own picture and build a common operating picture.

**Mr ROBERT**—Who else flies the Seahawk within the ABCA? Is it just the United States?

**Vice Adm. Tripovich**—Certainly it is the United States. I do not have a list of countries but there are other countries.

**Mr ROBERT**—Does the United States Seahawk have an anti-ship capacity?

**Vice Adm. Tripovich**—I will take that question on notice to ensure that I give you the right answer.

**Mr ROBERT**—Just looking across the world's current naval helicopters, if we continue our Seahawk to 2019, that is, for the next 10 years, where will that put us in the region with respect to an anti-ship capacity from our naval helicopters?

**Vice Adm. Tripovich**—A helicopter in a ship is only one of many means that we have of conducting operations. At the moment we looked at what we might want to do with the Seahawk before the end of its life. It was determined that we had sufficient other options for engaging surface contacts. That meant that it did not warrant going to the likely high technical risk cost and schedule impact, and the impact on the availability of the Seahawks that importantly have the ability of putting a missile on an existing Seahawk.

**Mr ROBERT**—Do any of our Asian neighbours run naval helicopters with an anti-ship capacity?

**Vice Adm. Tripovich**—I believe so.

**Major Gen. Fraser**—Just to help with that answer, there are variants that have missile systems on Seahawks, but not the Seahawk that we operate or the equivalent. So there is a trooping type version of Seahawk, not a Blackhawk but the trooping type version of Seahawk—the utility type that carries Hellfire vessels, for example.

**Mr ROBERT**—When we bought our Seahawk did we buy it without that, or did we buy it to fit it with that?

**Major Gen. Fraser**—This variant, the same as the United States navy variant, does not carry the Hellfire missile. That is a recent one on a Sierra model Seahawk. It is not in the current United States navy version either. The role filled by the United States navy Seahawk variants similar to the aircraft that we currently have does not have the Hellfire but the trooping support type version does.

**Mr ROBERT**—Does the United States Navy operate a naval helicopter with an anti-ship capacity?

**Major Gen. Fraser**—Yes, it does.

**Vice Adm. Tripovich**—The important thing is that it is a latter day variant.

**CHAIR**—We might move to the topic that was deferred a little while ago, the Wedgetail program, and we thank Mr King, who is back with us. Last year the Wedgetail project got a fair sort of working over during the committee's report and discussions. When we look at the most recent reports we find that there are still issues. If we look at the budgeted estimate and at the actual estimate we again find a substantial difference in what we thought we would be paying for and what we ended up paying for. The Auditor-General's report referred to the fact that, even now, if Boeing keeps to its current plans, the project will be more than three years behind schedule. That assumes that all will go well from now.

Not a lot in the program in the past gives us confidence about that estimate. What stage has the project reached and how realistic is the estimate of the aircraft coming into service next year? You might also like to comment on a reference in the Auditor-General's report. He refers to the fact if we are to meet that 2010 date we would have to deliver some partially mission-capable aircraft. Could tell us what 'partially capable' means and how it is to our advantage to get partially capable aircraft?

**Mr King**—There is no doubt about the fact that the program remains challenged. It is under intense management activity from our side and from the Boeing side. I might talk about two fundamental areas that are challenged—that is, the radar performance in particular modes, which is important to us, and the electronic surveillance measure system. I remind committee members that selecting the aircraft and configuration at the beginning of the program required the development of what is called the MESA radar, the new L-band radar capable of being carried on an efficient aircraft—the 737.

That has all the hallmarks of a technically challenging project, an aerospace project with a new developmental radar. We still have serious concerns about the total performance of the radar. Some areas of the radar performance are excellent. We have now secured the services of MIT Lincoln Laboratory, that is, the Massachusetts Institute of Technologies Lincoln Laboratory, which works only for the United States government; it does not work for companies. Through the United States government we have acquired its services to give an independent view of two important issues. What is the likely performance of the radar at present and is it fundamentally sound radar? If it does not work to full specification at the moment will it over time grow into being everything we expected?

Of course it is important for us to deal with both aspects. If it has no future there is no point in going forward with it. That report is not yet to hand; it will literally be available to us within days. That will inform us a lot more about what we can expect out of the radar technology. I refer to two elements about performance. It is clear in our minds that certain elements of the technical performance will not meet the specification. We do not know exactly by how much, and I will refer later to the testing regime. The second element of that is: Given that technical limitation, what does that mean operationally? Is it significant?

There are about 10,000 technical performance requirements of this aircraft and we are down in a few. No doubt they are important areas where we are concerned but we still have to get the view of the Air Force about what that shortfall means operationally. That is another piece of work in which we are supported by DCO and others and of course the Air Force to look at that operational capability. Importantly from my point of view, the information coming from MIT is, 'Yes we understand that there will be a shortfall at delivery, but is there still a viable path for the

future? Is this a platform that we should induct into service and that will serve us well for the life of the aircraft?’

The second thing that is causing us a lot of difficulty is the contract. Clearly, we know that this program has cost Boeing a lot of money. I want to stress that we will ultimately pay the contracted fee less any adjustments, and no more. The real issue for us in the military sense is that we do not have the capability that we expected. One of the problems with the way in which the contract was structured—it is a legitimate way for the contract to be structured—is that once the company acknowledged that the system would not meet all the requirements, basically we had a problem.

Because of the way in which the contract was structured we would not go into acceptance testing unless we had completed development testing. But once we had a statement that only confirmed our belief that the system would not meet all the requirements at delivery we could not go into acceptance testing. We were caught in a stand off, if you like. If we had gone into acceptance testing we would have been tacitly accepting that it had met all requirements so there was a catch. We implemented a standstill deed. Boeing is saying, ‘We cannot progress if you do not let us progress’ and so on. We stepped aside from the contracts with all contract rights retained and we implemented a test program without accepting on our behalf that it meets all requirements. However, we implemented a test program to see what it could do.

**CHAIR**—When did that happen?

**Mr King**—I think it was implemented in November or December last year. I will have to check the date. It was either very late last year or very early this year. Boeing reported to us that that has reinvigorated them because it has given them a path forward; it has given them a few to the horizon about how they can complete this program. There were a number of undertakings on both sides in that step aside. One of them is that Boeing bring the aircraft to Australia for what we are calling an operational utility demonstration.

One of the questions in our minds was that the aircraft was being tested in the United States, in United States environmental conditions and in United States climate condition. In order to understand its operational utility as opposed to the technical specification that you can measure, it is coming to Australia either later this month or early next month for a period of testing and for operational evaluations in an Air Force exercise. So it will be here for I think nearly two weeks. If you like I will get you the details.

The purpose of that is to get a sense of that operational utility of the Wedgetail system. We are also doing a number of other formal tests and trials. There is an ongoing and accelerated program in the United States and we have inducted other aircraft into that program. The intention of the deed was that in June we would take into consideration the Lincoln Laboratory reports, the operational utility demonstration, and the test trials program, the formal test and trials program in the United States to make a determination on the way forward for the project.

Bluntly speaking, is there a future? My concern is whether there is a future for this technology. The extreme of that is that we recommend cancelling the program. The other side of that program is that it has deficiencies. We understand those deficiencies but there is a path to move forward that will involve settlements and a number of other issues. There is a viable and

competent capability that has a long-term future and that is of value to the Australian Defence Force.

My view of that is that even that program is challenged. People are reporting what you would call stability, that is, that the systems that are working together are failing; they are not working in a stable way for long periods. Normally, if you go back to things like the Collins experience, those things tend to correct with time. You keep reworking your software until you get that out. Normally it is a correctable situation. It seems to me that although we are all working towards this end of June date to make this decision, we may not have enough data at that point.

We are certainly encouraging Boeing, and I know that Boeing are working with their staff at Northrop Grumman to meet that date, but it seems to me that it may well be July, August or September before we have enough information to make that decision. That is my immediate response to you. I would be happy to take any more specific questions on it.

**CHAIR**—I have one other question or point to make and then other members of the committee will also want to ask you questions. For quite some years now there has been debate in and around this committee about the suitability of our platforms in air superiority terms. Invariably when those matters have been raised in meetings such as this with defence, central to the answer has been the capability of a network-centric warfare capability. That is very much underpinned by Project Wedgetail.

**Mr King**—Yes.

**CHAIR**—This is not a peripheral issue; this is at the very core of what many would regard as our most important capability—that is, our capacity to dominate the air if needed. When we are talking about how the shortfalls might operate in a tactical sense in theatre I am a little concerned that we do not in any way degrade the capability requirement or the importance of ensuring air superiority. I think I understand the explanation, for which I am grateful. But this is not an area, given the committee's discussions on these matters over some years, where we would feel at all comfortable compromising capability.

**Mr King**—Of course, that is not the intent. The whole purpose of the work that we put in place from late last year until the middle of this year is to characterise the operational capability and the growth path to the future to make sure that it is not just that we induct capability but that we induct one that is able to grow. I should say that there are many other features of the aircraft that are all working or close to working—the link systems, the IFF and the radar in non-pulse Doppler mode.

**CHAIR**—The ANR report referred to a proposal to bring into service a couple of aircraft with diminished capability. That is dependent on the sort of analysis that you have described.

**Mr King**—And which we are doing in absolute conjunction with the Chief of Air Force.

**CHAIR**—Yes.

**Mr King**—This whole demonstration phase, this utility demonstration phase, is done with Air Force to test those various areas.

**CHAIR**—This has been going on for a decade. We have had five different project officers on the defence side of things. How do we maintain continuity and corporate knowledge on this from our side of the table? On the other side of the table, Boeing has now had three or four senior management teams involved in the project as well.

**Mr King**—I will comment and draw on my industry experience as well. To my memory we have had only two major program managers: the predecessor to the current manager and Air Vice Marshal Deeble.

**Mr Gillis**—I was a project manager on that list of five, but only for about two or three months in transition between the previous incumbent and Air Vice Marshal Deeble. We are listed in the major projects report, but that was a period of two to three months.

**CHAIR**—I am not sure whether that makes any difference whether you were there for two months or two years, frankly. I tallied five different project officers because that is what the Australian National Audit Office says there were. It gives the dates for them. If that is incorrect, we need to have some discussions with the Australian National Audit Office.

**Mr Gillis**—That is actually accurate. But you are talking about the project manager who would be there effectively the pre-first past environment, which would have been its developmental stage, through its lifecycle. One of the things I would like to see is more continuity in our project managers so that they stay there for longer periods. The reality is that if you are running a project for 10 years it is very difficult to maintain an individual working, whether it is in industry or in government, on a project for 10 years. Retirements happen, people move on, they get different job offers and that is the environment we have to operate in. But we try to keep as much continuity as we can.

**CHAIR**—That opens up a whole different area of issues that we may go to on another occasion.

**Mr BALDWIN**—How many of those aircraft are located in Australia right now?

**Mr King**—I do not know. I know we have two in America, but I will have to confirm where we are.

**Mr BALDWIN**—Have we signed a contract to expand to six yet or are we still looking at four?

**Mr King**—It is six.

**Mr BALDWIN**—We have committed to six?

**Mr King**—Yes.

**Mr BALDWIN**—What sorts of damages are in place against Boeing for delaying delivery?

**Mr King**—There is none in place because we make this decision about where we are at the end of this trial program. We have to have enough information on which to make a decision.

There are two avenues. One is the avenue of liquidated damages, which is for a pre-agreed amount of money for a delayed arrival of a capability, and the other is the normal compensatory claims for failure to deliver full capability.

**Mr BALDWIN**—Who else is buying this version of AEWAC?

**Mr King**—We are not privy to all the technical specifications, but a 737-based and MESA-based aircraft, Korea and Turkey.

**CHAIR**—They have contracted to acquire them or are they looking at them?

**Mr King**—Once again, because we are not privy to the information, but my understanding is that they have contracted to acquire but, of course, they are anxious to have this capability delivered.

**Mr BALDWIN**—What process of due diligence, given these are first of the line, was applied to test the integrity of these new radar systems prior to acquisition?

**Mr King**—It was a developmental radar, so you cannot test it. To be at the weight that this aircraft could carry—and this is a lower cost aircraft to operate—you needed to move into developmental phased array L-band radar. When you get into that domain and when you are trying to give the Australian military a leading edge capability that they can afford to operate you bump into on occasion these developmental programs, and this was one of them. You cannot really go and test something that has never been developed before.

**Mr BALDWIN**—Given the delays and all that we may or may not get an aircraft that is 100 per cent operational as per the specifications that were set. Would we perhaps not have been better off buying something that was relatively off the shelf?

**Mr King**—I think what the Kinnaird process has introduced is excellent. We touched on it earlier when one of the committee members talked about the need for capability edge or capability differences for use. It is very much up to the military in my sense of this for them to describe what they need to do the job. The responsibility we have in the DMO is to bring to their attention the cost, the schedules and the risk aspects of those approaches. That is very much what the Kinnaird process sets out to do. Where we might have been better informed, and I certainly was not around at the decision-making time, was that a Kinnaird process might have highlighted, for example, the differences between doing developmental aircraft and a risk appropriation for that with a non-developmental aircraft. But my understanding was not that the non-developmental aircraft was a large aircraft and very much more expensive to buy and it had an older style of radar.

**Air Vice Marshal Thorne**—Since we are talking history, I was the lead engineer for the project for the first five or six years. We did exhaustively look at off the shelf products, but as Mr King has indicated, at that stage the real options we had on the table were the E2C, which is a short range, low capability aircraft developed for the US Navy mainly for carrier ops, and the E3, which was already an ageing aircraft for the US Air Force. In addition to its age, it was also very manpower intensive to operate and maintain. So we were left with a real quandary. We did not tread lightly. In fact, you might recall some press at the time about whether this was going to

be a Collins class submarine. We did not tread lightly into that arrangement; it was with some trepidation.

The acquisition strategy—the due diligence that you referred to—was done by running a competition. In fact, it was quite leading edge at the time and controversial in that we funded what has now become the Kinnaird process. We funded a competition between the three leading AEWAC manufacturers. The competition was between Raytheon, who had offered an A310 with a very large Israeli radar on the top—a developmental product—against a Lockheed Martin offering, which was a 730J with a style of E2C radar on the top—again, a developmental product—against the Boeing product. So we had three very developmental products on offer. That competition was run for a year plus two years where we took it through to a preliminary design before we eventually down selected and got on contract.

I guess one of the issues that you do have with that kind of system with an airborne radar, particularly one of that size, is that until you marry the radar to the aircraft, which is naturally late in the development cycle, you cannot retire all the risk elements. During that due diligence, which we called the initial design activity competition, we were able to observe that radar on test ranges in Baltimore and the test performance in the ground environment was quite satisfactory for that stage. In fact, at least as satisfactory as any of the competition was at that stage, bearing in mind that the Israeli radar was quite developmental and the US Navy E2C varied and the radar being offered was quite developmental. What has happened is that as we have moved into that development and finally to the stage where we can marry a radar to an aircraft and get it airborne it has exposed some of the issues.

**Mr BALDWIN**—Is it a software issue?

**Air Vice Marshal Thorne**—Ultimately a radar of this type is implemented in software, so it comes down to software. I will step away from the detail because I am not involved in the project. However, it is a ground clutter issue. Radar like this looks down on the ground and everything that is on the ground and is a legitimate target for a radar like that. It comes down to the software to be able to sort real targets or air targets above the ground from the ground behind it. That is fundamentally the issue with the radar.

**Mr King**—We have a view about where the issues lie. But the reason I asked for this independent group—and I actually asked for the US to bring them in as a third set of eyes on the problem when I was working there last year—was to characterise what the problems are. We are only a week or two away from the answer to that question. I am hoping that we have fundamentally got what we call a sound architecture for this radar—that is, the basic hardware structures and the basic way it is brought together is sound—and that with time with the software changes and a number of other smaller changes this will be the leading edge.

Another question I have asked, and it will be in a classified section of the report, is even given that it does have some shortfalls, how it performs relative to anything else we might have been able to buy. I am hopeful that might be an encouraging answer.

**Mr BALDWIN**—In its current configuration with its limitations, how competitive is it to what is currently available off the shelf?

**Mr King**—That is what this phase is trying to—

**Mr BALDWIN**—That is the answer you are waiting for?

**Mr King**—A combination of the work from the Lincoln Laboratories and operational utility demonstration in Australia. Because the environment in which you operate it—like snow, desert, islands and water—all affect the performance to some extent. That is exactly what we are trying to characterise.

**CHAIR**—I move to another Boeing project, the high frequency modernisation program, which is another decade-long activity. I understand it is a complex one, nevertheless a decade is a long time. The Americans managed to put someone on the moon within a decade after JFK said that they would go there. We are still trying to put some modernised communication system in place in the same time frame. We do not want to be overly ambitious. Can we get an update on that project? I note reference to contracted delays is pretty common throughout the Auditor-General's advice on how this project is going. However, I notice there have been some areas have been implemented, and apparently satisfactorily. Can we have an update on the status of that?

**Ms McKinnie**—The core system has been delivered. It was delivered in 2004 and has been operational since that time.

**CHAIR**—What does that provide? I notice reference to that in the reports. What does that give us?

**Ms McKinnie**—That gives us an HF communication capability. It provides the fundamental heart of the overall HF communication network. It consists of four nodes. Those four nodes provide the ability to send HF signals out to ships and aircraft as well as vehicles.

**CHAIR**—Do our ships, vehicles, aircraft and so on have the necessary equipment to interact with that HF capability?

**Ms McKinnie**—Yes, they do. The next part of the project, which is to deliver the final capability, that part of the project which is currently in delay will deliver additional functionality to the standard capability that we have at the moment. It will provide automatic link establishment and those sorts of facilities that will reduce the level of operator input required to establish and maintain calls. Boeing has given us a commitment date to deliver final system capability by December 2009. Currently their schedule indicates that final systems acceptance would be March 2011 with contract completion around May 2012.

**CHAIR**—The whole project should be completed when?

**Ms McKinnie**—The whole contract with Boeing should be completed in May 2012.

**CHAIR**—Right.

**Ms McKinnie**—There is other work that is covered under the project—but not in the contract with Boeing—that has yet to be put to contract. Some of that work has been completed and some work has yet to be contracted.

**CHAIR**—Are the delays and items where payments withheld and so on referred to in the Auditor-General's report now back on track?

**Ms McKinnie**—At the moment, we are starting negotiations again next week to rebase schedule on the contract. As part of those negotiations we are seeking compensation for the delays. We are also seeking to finalise areas that have been in dispute between us and Boeing over the years. Until we get that schedule up to date, we have no basis on which to make any payments to Boeing. The milestones against which payments are due have passed and Boeing has not met those milestones, so no payments have been made.

**CHAIR**—What is the purpose of the rebaselining?

**Ms McKinnie**—The rebaselining that we are hoping to finalise next week will be to put the new schedule on contract and some of milestones will be redefined.

**CHAIR**—Are we rebaselining to lower the bar? Is that the point of the rebaselining?

**Ms McKinnie**—The reason for the rebaselining is to change the schedule. As part of the negotiations we are looking at providing Boeing with some waivers from requirements against which we are seeking a compensation for any waivers that we provide against requirements that are on contract.

**CHAIR**—How are those adjustments to capability being approved in the system? Clearly, when the contract was first let, the end users—three services—identified that capability as desirable. If we are now going to alter that to eliminate or limit some of that capability, what is the process and to what extent are the services and the people on the front line consulted about that and what is their view?

**Ms McKinnie**—We have consulted with each of the three services, the CIO group and the capability development group on the nature of the waivers that Boeing is seeking. The only waivers that have been agreed are those that can in fact be traded off. Some of the requirements when they were initially specified were required and highly desirable. They are no longer as essential as what was originally thought because there are other systems being introduced that provide that capability in a better way. For example, email over HF was a requirement, but it is no longer key requirement for the ADF. Any waivers that we will give in this process will be given based on agreements from the three services, the CIO and the CCDG.

**Vice Adm. Tripovich**—Through the Kinnaird process and the Mortimer review, which is with government, reinforced the practice test. There is a very close link between the DMO, CCDG as the overall sponsor—or as the agent for the three services or the various groups—and the services themselves all the way through capability development, approval and then delivery into service. We have various program management steering groups, for example, that regularly meet that involve all the stakeholders to get reports from the project, from the DMO on how the

project is going, to see any issues of concern or flag issues that are coming up and work out how they are going to deal with them.

In terms of capability, the hardware is clearly just one portion. With some of these very long lead times, capability development and the services set requirements for what we envisage what we will need and what will technically achievable. This is a good example of as time goes by, where it is sensible and pragmatic to do so, we should shift the goal posts. These are the things that Ms McKinnie just mentioned. For example, if we do not need to pursue that anymore because there are other means of delivering capability we would be wasting money, effort and time if we persisted. Similarly, as we said before, where threats change it is very appropriate that we shift the goal posts before we sign a contract. That is what the Kinnaird process allows us to do.

Where there are not material changes, program manager is authorised to make those changes without further consultation. However, where they are significant, we take them back to the core source, which is me and the service chief, to get them to agree that a capability will be changed. Sometimes we have to go back to government to get them to agree where it is that material. Sometimes it is pragmatic and sensible to do so because you would just be pedalling in the water and not going anywhere trying to chase something that is not technically feasible or, indeed, will not deliver a capability. Sometimes it is best to get 80 per cent of the capability now and not 100 per cent in 10 years time, for example.

Where we do need to change the capability, we go through the process to say how we will fulfil the capability requirement. Sometimes it is done by altering our tactics and procedures to deal with a shortfall. Where perhaps we buy a thing that does not go as fast or as far we change our tactics and procedures. The combination of all of the fundamental inputs to capability, as we call them, which includes the training we give people, the quality our people, the way we fight the battle, that gives the whole capability. The hardware is just one part of it. It is an important part, but just one part.

**CHAIR**—Thank you for that. I notice that ASBE have calculated that this project is about 57 months over its initial schedule. Does that sound right?

**Ms McKinnie**—For this contract, at contract signature contract completion date was May 2004. Now, based on what Boeing has on the table for negotiation it is May 2012, so that is eight years.

**CHAIR**—Cumulatively out of that what have we learnt? That is pretty appalling in terms of original expectation of governments of the day, taxpayers of the day and I am sure the defence personnel of the day. Where have all those delays come from?

**Ms McKinnie**—Initially a large number of the delays arose through the process of refining the requirements and ensuring that as they were decomposed into lower level requirements and they were understood by Boeing that raised some issues with definition of requirements. There were some delays as a result of that. Boeing admits that it underestimated the time it would take in terms of the amount of software that was to be developed and also the time it would take to develop that software. They indicated that their metrics of how long it took versus what they initially estimated were about two to two and a half times out early in the piece. As a part of the

program to try to catch up time, they cut corners on their systems engineering process. The cutting of corners and then led to rework. It takes you longer to rework stuff than it does to do it right in the first place.

**CHAIR**—Hold that thought, because when we come to talk about the JSF it is an interesting point.

**Ms McKinnie**—The current problems that the company is having are around time taken to integrate and test. Some of the requirements that we have in this final set of functionality are difficult to achieve. We have checked that the architecture is right and that they are deliverable. Nonetheless, it has been more difficult than Boeing had originally estimated.

**Vice Adm. Tripovich**—To summarise broadly across capability development process, while this was going on of course Malcolm Kinnaird was doing his pivotal Kinnaird study. It really has reinforced the things that Kinnaird identified. That is, before you go to government on the eve of a contract you should truly understand what the specifications are and how you should express them, truly engage much more deeply with industry and, as he said, pay for it between the first and second pass to get the quality of information you need. I think we are much wiser now about finding out what are the drivers of cost schedule and capability in that first and second pass. When we enter into a contract we have a much better understanding of those and therefore a contract has sufficient provision for cost schedule and capability risks. I think that is the big lesson.

**CHAIR**—I am sure that a great deal of the content of the project is understandably classified. But I get the flavour from the Auditor-General's report of the complexity. But there is also one paragraph in the report on this where Auditor-General noted that the system being provided is designed to be one of the most advanced of its type in the world. I guess for which we can read these complexities and headaches as well. Then it says that it incorporates capabilities leading those in similar high frequency communication systems in the United States and the United Kingdom, which gives the reader a flavour but understandably it is to be interoperable with our allies in the field. But it also gives the impression to the lay reader that we are not completely inventing new kit. That is, the UK and the US have systems that do similar things. Yet it seems that we have either tweaked it in some way or managed it in some way that has resulted in this very substantial overrun. It is that different from the UK or the US systems that it is going to work hand in glove with?

**Ms McKinnie**—The technical review that we conducted last year with independent experts from the US and the UK indicated that the system as it will be delivered will be most advanced HF system in the world.

**CHAIR**—But still fully interoperable with the US and the UK?

**Ms McKinnie**—Yes.

**Vice Adm. Tripovich**—The point of interoperability is, of course, my being able to transmit a message over HF and someone receive it. The equipment at either end is completely interdependent. They could have—

**CHAIR**—It is very basic. I am sure that for the money we are investing it will to a little bit more than that.

**Vice Adm. Tripovich**—Our system will really be the best technology available and the person at the other end of my radio call may well be using a clunky old HF. That will be the difference. But the system we will have will be the best.

**Mr BALDWIN**—I would like to talk about the frigates. I understand that one of the frigates currently tied up alongside HMAS *Perth* in Sydney has some major engineering problems. Can you elaborate on that for me?

**Rear Adm. Robinson**—I am not aware of any frigates in Western Australia with major engineering problems.

**Mr BALDWIN**—I think it is in Sydney.

**Rear Adm. Robinson**—I am not aware of any frigate with major engineering problems. To the best of my knowledge all of our frigates—there are 12 of them—are serviceable within the cycle of the usual upkeep. Some of them are undergoing maintenance, which is normal. But I am not aware. I may be corrected and I can find out.

**Mr BALDWIN**—It has been put to me that there is a transmission issue of major concern in the frigate that has some long-term ramifications for the integrity of the ship.

**Rear Adm. Robinson**—I am not aware of that. The same question was asked at the hearings last year. I think at the time we investigated it and it referred to a defect some years ago with one of the gearboxes. But that was resolved and there is no current major defect that I am aware of.

**Mr BALDWIN**—So we have your assurance on that?

**Rear Adm. Robinson**—You will find out. If I am not correct, I will let you know. I can check my brief after I have finished speaking to you.

**Mr King**—We are just checking back now. But it is a very recent development.

**Mr BALDWIN**—The information I was given was that this goes back a couple of months.

**Mr King**—We will check that.

**Mr Gillis**—It related to HMAS *Perth*.

**Mr BALDWIN**—She is alongside in Sydney.

**Rear Adm. Robinson**—I am not aware of that. If it was major I would be aware of it because they would ask me for money to fix it.

**Mr BALDWIN**—You can go back and examine the information. I refer now to the air warfare destroyers. Has the window of opportunity for the forth destroyer come, gone and passed?

**Mr King**—No, it has not.

**Mr BALDWIN**—Presumably there was a time line that ran out late last year that the government had to sign up for the forth to be included in this program.

**Mr King**—The original contract had an option that was until October last year. I negotiated an extension with the industry participants until the middle of this year.

**Mr BALDWIN**—Until June this year?

**Mr King**—It is either the end of June or the end of July, but it is around that period.

**Mr BALDWIN**—I have a question about the design of the ship. Will the ship be deployed on its own or as part of a fleet?

**Mr King**—It is really an operational matter, but it could be deployed either way.

**Vice Adm. Tripovich**—It can operate independently or as part of a taskforce. I agree with you that an air warfare destroyer in a task group would be central to the group.

**Mr BALDWIN**—I refer to the fact that it has one helicopter on board and the issue of something happening to the helicopter while it is deployed from the ship. If it is operating solo and that helicopter might be 50 miles or 60 miles away, what procedures are in place given there is no backup helicopter to pull people out of the water?

**Vice Adm. Tripovich**—Is that if the ship is by itself and its own helicopter goes in the water and we do not have a second helicopter to recover it?

**Mr BALDWIN**—Yes.

**Vice Adm. Tripovich**—It would be same situation faced by all the other ships in our Navy and the other navies that have only one helicopter on board. For example, the Anzac class has only one. Although FFGs have two hangars, most often they steam around with only helicopter embarked. So the normal naval things that we have in place to do search and rescue for downed aircraft would kick in. If you have a second helicopter you could launched it and head it out there, but it is not central to the search and rescue effort for downed aircraft. A ditched aircraft is not a determinant on the number of helicopters that you carry or the number of hangars that you require on a ship.

**Mr ROBERT**—Forgive me for being a little hazy. At the last hearing we were briefed by the Chief of Navy and asked him what was his single biggest concern. This was probably August last year. It might have been earlier, obviously prior to his signing off. He said his biggest concern was in the frigate fleet and its inability to deploy to the gulf waiting for a systems upgrade. He indicated that the contractor at the time had until October-November to try to rectify

it. Forgive me if the details are a little hazy. The last time we met for the defence annual hearing, I asked the question as to how things were going in that respect. He indicated that it was progressing slowly but still had not been signed off. Can you give the committee an update as to where things are up to with that?

**Mr King**—The vast majority of the upgrade work has been completed. We have a missile upgrade program that goes with it, but it is a collateral program. The electronic systems measures system and some of the torpedo detection systems are the last two major areas of concern in terms of the contractor meeting requirements for the ships to be accepted. The fourth ship is still to be upgraded. Between the Chief of Navy and me we have formed a dedicated team of two commodores—one from the DMO and one from the operations are—to work methodically through all the issues associated with bringing that ship to full operational release in a graduated manner. They have identified all matters that need resolving and we are working steadily through that program.

**Mr ROBERT**—Who is the contractor?

**Mr King**—Thales.

**Mr ROBERT**—What is the actual software?

**Mr King**—There were a number of things to the upgrade. There was an upgrade to the command and control system, ADACS. They were developers of that. But there were also other things upgraded like surveillance radars, the ESM system and so on. There were also some platform changes. But they were prime contractor for it.

**Mr ROBERT**—I understand that that failed its test in October last year.

**Mr King**—That is not true. The core upgrade has met all its testing. The two areas of technology that remain to be completed in the testing are the electronic support measures and the torpedo ASW system. In we just did another set of trials in America on the ESM system off the range in Hawaii and the report from that is currently being finalised. It is in draft stage now—it is a 140-page report—to quantify whether the technical capability has been met.

**CHAIR**—I think last year there was some discussion about the methodology to be engaged to determine whether or not the systems were operating satisfactorily if my memory is right. Can you clarify whether or not that issue has now been agreed?

**Mr King**—I do not know that I was at that last hearing, so I am not sure what was said. We have an agreed path forward for the testing and evaluation. There are two distinct tests here that are worth reflecting on. The DMO's responsibility is to deliver the systems that the requirement was set around. The capability manager—in this case the chief of the Navy—in addition to that makes determinations about those suitability for contemporary requirements and so on. That is called operational test and evaluation.

So we take it to the point of the completion—does it technically meet? We obviously work very closely together. But our responsibility is to make sure there it meets the technical requirements that we committed to meet. The final assessment about why it meets the Chief of

Navy's needs for those operational deployments, for example, is very much in his domain. The point I made at a recent inquiry was that if there has been an emerging issue, and I am not necessarily reflecting in this particular platform. But what can happen in a program that runs for six or seven years is that you might put in a particular piece of upgrade and another threat has emerged. For example, IDs emerged as a problem in Afghanistan. We had to upgrade things because there was an emerging need. The Chief of Navy measures against his contemporary needs. That part of the testing is yet to be done.

The ships and aircraft in AEWAC are very complicated things. I think what is not being said about the FFG upgrade is that the vast majority of that system is working and is well regarded. So much so, by the way, that the Americans, because of the light possibility that the Americans will have to keep FFGs class ships in service longer, and those class of ships are also in service around the world, we have been asked to participate in a conference in May in the US to discuss with the Americans and the rest of the world our FFG upgrade because it is seen as a viable option for other navies to take that sort of path to extend the life and capability of their FFGs. So there are many good points to that program and there are certainly a couple of points that are yet to be finalised.

**Mr ROBERT**—When will our FFGs be able to be deployed in the gulf, for example?

**Mr King**—I cannot answer that. That really is a question for the Chief of Navy ultimately.

**Mr ROBERT**—Let me rephrase it: When will you sign off to say that you are happy that the ship is certified as meeting all of its objectives and hand it over to the Navy?

**Mr King**—Noting that we have still have a fourth ship to go through the cycle, I would believe that the contractor will have met its requirements to compete the upgrade certainly later this year—towards the middle of the year.

**Mr ROBERT**—Around July?

**Mr King**—Noting that we still have the forth ship to do.

**Mr ROBERT**—Granted. You are confident that the ship will reach certification and that the DMO is happy that Navy can put it through its sea trials for deployment overseas?

**Mr King**—No, we do not sign it off for deployment overseas.

**Mr ROBERT**—You would say it meets all project requirements?

**Mr King**—We would say that. Having said that, we would clearly work with the Chief of Navy to get into that full final operational release. That is why we set up this team of two commodores to work through every single issue in an incremental way to get the ships to that state.

**Mr ROBERT**—Admiral, how long does it normally take for your sea trials to validate the certification from DMO?

**Vice Adm. Tripovich**—I am not in the Navy program, so it is for the Chief of Navy. But from my experience—and I would not want this to be the quotable number—it is less than six months I would say. Is that a good enough indication for you as a ball park figure? However, I would not want you now to quote that as the number. It depends on what needs to be done. I am not speaking on behalf of the Chief of Navy, but as a naval officer. The Chief of Navy is very closely involved in the process going on at the moment.

There are things that the Navy is able to observe—during contractor trials for example—that can quickly satisfy his question about whether it works and whether they will be able to use it. So the shaping of the acceptance in the service or operational release activity that the Navy does changes as we go along. At the end of the day after the DMO says here it is to the Chief of Navy he will know the bits that he now has to test. He will then determine in what theatres it can be released to operate. Is there a submarine or not? In that scenario that will determine how important ASW is. Is there an electronic threat, yes or no, will determine how important that electronic support measure is to the scenario. It is very much likely scenario driven. It is important to note that three of those ships are doing stuff right now and are able to work in the environment they are authorised to operate in. It is not as though they are all tied up alongside.

**Mr ROBERT**—Has the Navy signed off those three ships?

**Vice Adm. Tripovich**—I cannot speak for the Navy.

**Mr King**—No, they have not finally signed off. That is the process we are going through now. To reiterate, those three ships are in service and are being used. One just came back from an exercise.

**Mr ROBERT**—My question is, can then used in the gulf?

**Vice Adm. Tripovich**—The Chief of Navy has not cleared them for operational release.

**Mr ROBERT**—So they may well be steaming around in Australian waters and exercising, but they cannot steam to the Gulf right now.

**Vice Adm. Tripovich**—The Chief of Navy has not given them operation release.

**Mr King**—No.

**Rear Adm. Robinson**—Mr King explained the process. The Chief of Navy has agreed he is taking a staged approach. The approach with all these products when they come to be accepted is the purpose for initial operational release is that the Chief of Navy can determine what roles a platform or capability can undertake. With these FFGs stage one, as we are calling it, in the maritime interception operations will be granted later this month before HMAS *Sydney* can be deployed around the world. There is a range of tasks those ships can then be deployed on.

Mr King mentioned the electronic support. The second phase is a higher capability. That is the one that is currently preventing the Chief of Navy saying he would send them in the gulf. When they electronic support system is at a standard that the Chief of Navy is happy with then he will release that part of it.

The third part of the release is the underwater systems, which includes the torpedo defence system. That is, once again, a new capability. We are first Navy in the world to explore the ability to do that and we will get to that. To the answer is no, they cannot deploy at the moment, but it is part of a phased release and they can be used on many other tasks.

**Mr ROBERT**—My understanding from Mr King is that the project will certify that those three capabilities will have met their stated requirements by the middle of the year.

**Ms McKinnie**—We have just got an update. That is for the first three, but we should have completed all four by December this year.

**Rear Adm. Robinson**—The final ship will get provisional acceptance in the filled middle of the year, in June, but the final contract acceptance is in December. Once again, we are going through the process with software updates for the electronic support system. That will be delivered in May and then there will be some more testing. The point may come where we do not get it to work. I do not want to say here and now, even though Mr King give a target date, that we will sign off and say to the Chief of Navy, 'Here, it's ready to go.' We are not finished.

**Mr ROBERT**—But the defence committee could reasonably expect that if the three ships have been signed off by the middle of the year, as Mr King indicated, and all else being equal and according to the admiral it takes six months, that three FFGs will be all to be deployed to a combat zone, somewhere like the gulf, by Christmas?

**Rear Adm. Robinson**—You do not think we can say that because the Chief of Navy is not here and that is not a question that we could answer.

**Mr ROBERT**—Granted. If you are signing off everything by July and notwithstanding that tests can take any number amount of time and I clearly understand that, but if it takes on average six months and there are no problems, Christmas would be—

**Mr King**—It is not that we are trying to avoid it, but in taking a ship to the gulf—and the Chief of Navy is concerned about certain threats that exist there—it is important to have the ESM system. In his determining that a ship is ready to do that, not only do you have to have the system performance, you also have to the people performance and everything else. I think it is appropriate if he answers that question. I have said before on the record that we all make decisions at certain points on the technical performance as they were reached.

About a year ago I was very concerned that we would not meet those technical performance areas on the ESM system. Since then, the technical performance has been measured at intervals. We have carried out upgrades, particularly software upgrades. We have also carried out some hardware changes. We adjusted the mast structure that was interfering with it and some reflections. We had too many targets being reported on occasion, so we had to smooth the software down so that we did not overload the system. So we made a number of changes to the hardware.

It is my belief at the moment that although we are not there at the moment the hardware will meet its contracted performance after a few more changes around the middle of this year. There is still the big challenge, which is the big test for the Chief of Navy and which it is not my

position to make a judgement about, is suitable for him provide an operational release to take ship to the gulf.

**Mr ROBERT**—You referred to the hardware. Do you mean hardware and the software?

**Mr King**—I meant the system, the equipment. The

**Mr ROBERT**—Your project?

**Mr BALDWIN**—When do you expect the first block to be commenced for the air warfare destroyer?

**Mr King**—First block construction?

**Mr BALDWIN**—Yes.

**Mr King**—They will cut steel in September this year.

**Mr BALDWIN**—Can you update us on the progress of the LHDs?

**Mr King**—The LHD project is rolling on schedule at this stage. The contract was transferred from Tenix when BAE acquired it. I was a little bit concerned about that changeover in terms of a diminution of focus from the industry because of the change of ownership. Our program manager on that is a very experienced manager who has had an industrial background as well as in the public service. I recently participated in a program review in Spain and saw the progress on the Spanish equivalent, the BPE, which will be a magnificent ship for Australia in terms of capability.

I believe that, and we have told the contractor, that they need to work harder to keep the whole program on schedule. But all indications at this stage are that it will be a fine project and that it will be okay. They had two big problems in Spain on the construction side. First there was a slowing down of construction of their own BPE. This probably comes back to lessons learnt, and I think we talked about doing things too early. They actually launched the ship before they should have. The rule of thumb is that it takes you seven times longer to do something in a ship once it is launched than it takes to do it before it is launched. The second thing is that they had a storm through there late last year or early this year. It did quite a lot of damage to their facilities. I think that will have only minimal impact on our construction program. Overall it is in good shape. We talk about the lessons learnt. You have to be quite alert early in the program because you can get a bit complacent early in the program.

**Mr BALDWIN**—What sort of time delays are you expecting over the original estimated time of delivery?

**Mr King**—None. I am just being cautious. When you have these impacts, are you correcting them and are you correcting them early? I am very confident in our proposal manager; he is doing an excellent job. I am also quite confident to BAE, as they have taken over the project, will get on top of it.

**CHAIR**—While we have Navy here, I would like to ask about the submarine escape facility in Western Australia. The committee was over there last year. Since then a decision has been taken to contract out some of that training. Can someone run us through the history of how we got to this point, going back to the point when those tasks were done by people within the Navy system? There was obviously then a decision to take it out of uniformed hands. We now find ourselves with what I still believe to be a world-class facility, but not being used.

**Rear Adm. Robinson**—Before I start I would like to close a previous question about a defect in a frigate in Sydney. I have made a call and there is still no major defect. The only thing I can report is that during a routine maintenance cycle some corrosion was discovered in a gearbox in one of the Anzacs in Sydney. That is being addressed. It is not a defect that is preventing ship from undertaking its program.

**CHAIR**—Which ship?

**Rear Adm. Robinson**—HMAS *Ballarat*. HMAS *Anzac* is also going to undergo maintenance in Sydney. We checked all the ships in the class and that was the second ship that had some reports of minor corrosion in the same cross connect gearbox. Once again, that will be treated as a normal maintenance activity.

**CHAIR**—Thank you for that.

**Rear Adm. Robinson**—With regard to the escape and rescue, in 2001 defence made a decision to outsource the escape and rescue training. I was not around at the time so I cannot determine why that decision was made. I imagine that one of the factors in that would have been the continued availability of naval staff to operate in the centre.

**CHAIR**—The contractor was engaged using the people who were there day before in uniform.

**Rear Adm. Robinson**—That often happens. I understand that happened in a lot of areas. That happened with cooks, stewards and drives in the whole outsourcing activity.

**CHAIR**—I am trying to figure where the up side is for defence in this.

**Rear Adm. Robinson**—As I said, I was not there and I do not want to revisit that decision. But one of the issues is that you then get contractor to a guarantee delivery a supply that is not subject to naval manning issues and demands. That could be one of the reasons. As I said, I was not there. I can talk about the history and what we have done sense then.

**CHAIR**—I will not hold you accountable.

**Rear Adm. Robinson**—There are two components that I should address because they relate. One is the escape training that occurs in the training facility at Stirling and the related one is the rescue service. Before 2003, when we let a contract for both, ASC managed the rescue service with the *Remora* and the Navy did in-house training. A combined tender was put out and a contract was let in 2003 for five years to operate both. The thinking at the time was, and it remains valid, that if an emergency occurred and we had had the rescue equipment, we would

use the experienced workers from the training facility to assist and to man that equipment. That makes sense because they are trained in those sorts of aspect of escape. On that basis it was a combined contract.

As that contract was approaching the end of its five years, we undertook a retender activity. The contract expired in June 2008. The tender activity started some 12 months before then with a view to having a new contract in place. In December 2006, the *Remora* was lost off the Western Australian coast. It was recovered in April 2007 and it was sent back to Canada to be refurbished and have some obsolescence issues dealt and recertified for 10 years. The lifting gear for that equipment was sent back to Scotland, where it was manufactured, for repair and to be recertified. That was due back in Australia in the middle of 2008. The *Remora* came back to Australia in June 2008, fully certified.

The lifting arrangement returned in August but it was not certified by our classification society because of certificates about its ability to operate in the sea states that we want it to operate in. Because that equipment was not certified and therefore we could not introduce it into the service in the time frame we had envisaged, and at the same time we had selected a preferred tenderer and had started negotiations for the new contract, we needed to amend the contract to say we were going to take out the rescue service and change the contract to a training contract. That proved a difficult negotiation for two reasons to get what we considered was value for money in a new contract. In December 2008 we were advised by DMV, the classification society, that they were not in a position to certify this equipment without further modifications.

**CHAIR**—That is the rescue equipment?

**Rear Adm. Robinson**—Yes. The probity adviser said that we should not proceed with the contract. For those two reasons we terminated the contract in December 2008. At the time we realised that the tender negotiations were going to take some time, we started exploring how we would conduct the training process for mariners in the event that we could not recommission escape training facility in Western Australia. When that came to pass, we made the arrangements with Canada and we have since been sending submariners who need that training or retraining to Canada. We have so far sent 58 people to Canada to complete that training.

We put out a new tender for the escape training facility last month. Tenders close this month and they will be assessed and we will have a contract signed in June. The contractor will have to get his team trained and up to speed and then we can start training people in our facility before the end of the year.

**CHAIR**—Many of the instructors who were there prior to 2001 stayed there as employers of the private contractor. Do we know where they are now? Are they engaged in Canada? Are they no longer in the workforce? What is the situation with those people?

**Rear Adm. Robinson**—I do not know precisely where those people would be now. We did pay some money to retain them pending the contract negotiations on the basis that the new tenderer would pick them up. We stopped that in December. We believe there are a number of them still in Western Australia. We expect to get a number of responses to this tender.

**CHAIR**—Setting aside the question of whether it was a good idea or not to link escape training recovery requirements, circumstances required that to be separated out. Has there been consideration given to directly engaging the Navy instructors? Is the Navy getting back into the business of what I would have thought was absolute core submariner training?

**Rear Adm. Robinson**—In conjunction with Navy we did an assessment of taking that training in-house to establish whether we could do it. We still put it out to tender though, because it is a significant step and it would take some time to reconstitute that in-house capability. It is not a skill that Navy practices. One of the reasons for outsourcing it is that it is not an inherent Navy skill. The skills of the water workers are not training we normally give to any of our personnel.

**CHAIR**—Sorry. Are you saying that escape training for submariners is not something that Navy normally trains in?

**Rear Adm. Robinson**—Escape training for submariners is a requirement of the Navy. We have made it mandatory training. The skills that the people who run the training facility need are not normally skills that the Navy requires. There are particular techniques used to work in the water column. Even Navy divers would have to go through a retraining period given that they would be most suitable of our people to do that. But it is not a standard Navy skill the way we train those people.

**CHAIR**—How did Navy manage to do it prior to 2001?

**Rear Adm. Robinson**—We used to train in the United Kingdom before 1987. Then we built our own facility and we undertook our own training program. Sailors posted to the escape training facility would undergo a training program. I could be up to three months and they get certified in work in the water column. There are a lot of commercial divers who do deep diving work in our offshore industry. They have a similar skill set that could be trained to work in the water column. I do not believe that it is a task that we cannot continue by using people who are not Navy divers. In fact, I understand that not all the people in that water column are Navy divers. Some were submariners and other people.

**CHAIR**—So we would hope to have that facility back in use at some time in the near future. Is that where we are heading?

**Rear Adm. Robinson**—That is correct. We will have a contract in June and then it will depend on the time taken—it could be 12 weeks to 16 weeks—to fully train and certify all those water workers. Meanwhile, there is no impact because we are training the submariners in Canada.

**CHAIR**—There are a couple of other important issues that we have not touched on at all. I am mindful that there may be issues that others are best placed to answer. I refer to the discussion about the JSF, the GAE report in the United States dealing with the JSF questions associated with cost, timelines and risk management in the project. They are obviously matters that we flagged in correspondence with the minister and the department that we are keen to look at and also the broader question of the Australian industry capability and engaging with Australian industry as a policy issue rather than in respect of any particular platform was also flagged in

correspondence. We will need to revisit that on another occasion. We will find a mutually suitable time for us to get together. I understand from discussions prior to starting that some of these things are being looked at in meetings overseas. It may be best all round if that is dealt with at a later time.

**Mr King**—I can provide an update on a question asked earlier on the AEWAC. The deed was signed on 17 December 2008. The operational utility demonstration will occur 20 April to 1 May. The number of aircraft in Australia varies. Four aircraft were upgraded in Australia, if that is what the question was. But the number of aircraft varies in Australia as we move aircraft in and out of the US test program to assist in accelerating the test program. Of course, at the moment we have one having returned to do the operational utility demonstration.

**CHAIR**—I again thank everyone from Defence who has appeared before the committee this morning. If there are any outstanding questions or matters that you have been asked to take on notice, if you could forward your response to the secretariat in due course that would be appreciated.

**Mr Gillis**—There is some very late-breaking news on a couple of the ships that might go to answer a question.

**Rear Adm. Robinson**—There was a question asked by Mr Baldwin. I have just been alerted that HMAS *Sydney*, which is a Sydney-based ship, has a problem with one of her gas turbines that will require some blades to be changed. It will take about six days for the work to be done.

**Proceedings suspended from 12.19 pm to 2.31 pm**

**FOGARTY, Brigadier Gerard, Director General, Personnel, Army**

**GILLESPIE, Lieutenant General Ken, Chief of Army**

**GRZESKOWIAK, Mr Steven, Head, People Strategies and Policy, Department of Defence**

**HILL, Captain Mark Davenport, Acting Director General, Navy Personnel and Training, Department of Defence**

**MINNS, Mr Phil, Deputy Secretary, People Strategies and Policy, Department of Defence**

**NEEDHAM, Air Commodore Anthony, Acting Head, People Capability, Department of Defence**

**CHAIR**—I formally reopen this public hearing for the subcommittee's review of the Defence Annual Report 2007-2008. During this session we intend to have a look in particular at recruitment and retention issues. I now invite representatives of the Department of Defence and the ADF, who are involved in giving evidence in relation to this area of the annual report, to come forward.

**Mr Minns**—I am sorry, Chair. I am just trying to find my colleague.

**CHAIR**—I received a note about some change because there has been a late call for Mr Prior to be engaged in other activities. I do not know whether that affects you.

**Mr Minns**—It does not affect recruitment and retention, so no.

**CHAIR**—Although the committee does not require you to give your evidence on oath, I advise you that these hearings are legal proceedings of the parliament and therefore have the same standing as proceedings in the respective houses. Would you like to make any opening statements for the committee?

**Mr Minns**—I understand the committee would like to get a bit of a briefing on GORPS, and that is particularly why I am seeking to find Steven Grzeskowiak, who has been overseeing the entire GORPS implementation. He left the office with me, but he is just not here.

**Mr BALDWIN**—Mr Chair, may I suggest that we defer discussion on this matter until the other person is present, and bring forward another subject?

**CHAIR**—There are probably other areas of recruitment and retention.

**Mr Minns**—And we can take those.

**CHAIR**—If there are no other matters on recruitment and retention, certainly we will do that. But in terms of recruitment and retention, I think there are a couple of areas of interest.

**Mr Minns**—To the matter of a general statement on recruitment and retention, obviously with the general performance of the economy we have seen a flow-through to increased inquiry rates in the recruitment area, as you would expect. It is a fairly healthy flow-through. We do not attribute all of that to the impact of the state of the economy. We think that efforts we have put in place over a good two-year period to drive increased responses to our advertising campaigns and our on-line strategy, et cetera, have also factored into the increased inquiry rate. We are encouraged by that.

We do not yet see the full conversion of that performance into enlistment rates. That reflects the fact that the gap between inquiry and enlistment for people who persist through the process can be six or nine months. So it is not automatic, once inquiries and enlistments go up, although we are starting improved conversion in the last quarter. That would just be a remark about the status of the economy and how it impacts our recruitment efforts. We still remain an employer with some fairly exacting standards that we test for, and we have to apply those normal screens. While the inquiry rates might be driven up because of the state of the economy, it does not automatically convert to inquiries from the sorts of people who we can expect to enlist.

Having said that at a general level, which is referrable to the macro rates of inquiry and enlistment, we probably have experience from previous recessions that we can highlight through our research efforts that demonstrate that the quality of candidates in certain areas tends to lift in a period of economic downturn because, in a sense, they return to officer careers, in particular, within the services as an option that becomes more appealing since options they might have considered in the finance sector, et cetera, are not available.

We expect that we will see that in our officer performance, which to date is quite solid. It is hard to talk generally and simply say that because there is a recession we will see improved enlistment. It is somewhat more of a colourful and mixed model than that simple framework.

**CHAIR**—Do you have quarterly separation rates?

**Mr Minns**—Our separation rate rolling average to the last month was 9.9. It has hovered under 10 for about the last six months. The lowest it has been in the period is 9.7. We think that a leading indicator, such as the revocation of intentions to leave, is probably a more useful indicator of how the state of the economy is impacting upon retention. We know, for example, in the area of submariners in the Navy that we have seen some signs of increased levels of people revoking their intention to leave. That is probably a leading indicator of the effects of the economy on retention.

**Mr BALDWIN**—Can you advise me of the effect on separation that the Defence Home Ownership Assistance Scheme has had—whether it encourages people, once they have got past 1 July and qualified, or whether there was an exodus after that?

**Mr Minns**—We had a concern that that might happen and that there might be a blip associated with people holding off their decision to separate until 1 July when they qualified for the scheme. We followed it and we tried to do some analysis of notifications of intention to leave and applications to the Department of Veterans' Affairs, who are the managing agent for the scheme, and we did not really find any direct correlation. In that last six-month period, we came

down to 9.7, we saw it go back up, and we have since seen it come back down. I guess it has stayed pretty broadly under 10 per cent.

I think the other reason why it probably did not occur that way is that people have the opportunity to access the scheme up to two years after they leave service, so it did not operate as a definitive point that would drive increased separation. We were alert to the fact that it might, and we tracked it, but we did not find any significant correlation.

**Mr BALDWIN**—You raised earlier the issue of submariners. In discussions with submariners both on HMAS *Stirling* and subsequently, one of the issues was a \$60,000 incentive for people to re-sign for an additional 18 months or to stay for 18 months. That brought about a position in which the pay of a chief petty officer was lifted to around \$10,000 under that of a commanding officer such that the lowest ranking personnel on the ship, the able seaman or steward with less than three years experience, was actually paid substantially more than a lieutenant navigator with more than three years of seagoing experience. What is being done to address that situation?

**Mr Minns**—Mr Baldwin, I think that is a question I would ask someone from the Navy address, but I would make a couple of general points. Probably across all the services and within my group, we hold the view that retention bonuses are a somewhat blunt instrument, and in a sense they are an emergency instrument; you use them when you are seeking to get a significant effect on a trend which we do not think can be sustained or is sustainable. They create a range of cultural issues and a range of relativity issues, so I think it would be best if someone from the Navy addressed that because they are much closer to that than I am.

I was with the submariner team in Perth approximately three weeks ago. When we spoke about the sorts of factors and issues that they felt were contributing factors to how they feel about their service in the last six months or a year. It was much more things like changes to the activity schedule and shore leave arrangements and the ability for them to spend more time at home while in port. They were the sorts of issues that the submariner crew were pursuing.

It was the Collins ship and I had seen the same crew members, or some of them, probably 10 months earlier on the east coast. There was a discernible view that some things had improved about the lifestyle of being a submariner in the intervening period. In essence they did not raise with me questions about pay.

**Mr BALDWIN**—I am amazed that none of the ranked officers raised any of the issues in relation to the \$60,000 because I was inundated with calls from all of the crews from all of the ships, including one who was an officer and who is now a state member of parliament in the Western Australian parliament about the issue. I cannot understand why it was not brought in as a \$60,000 bonus across all rankings rather than non-officer ranks.

**Mr Minns**—I think there is history to that which relates to the fact that naval officers had received movements in their pay through the GOPS scheme, the graded officer pay structure. My recollection is that it was the view of the Defence Force Remuneration Tribunal that extending the naval capability generally would amount to a double dip for officers. That is my recollection. I do not know if Steve could add.

**Capt. Hill**—What Mr Minns is saying is correct. The Navy capability allowance, to which you refer, sir, was the \$60,000 bonus to address, as a short-term measure, severe and emerging problems we saw in the submarine workforce. It came in the wake of the graded officer pay scale decision by the DFRT, and the DFRT thought that officers had already been dealt with. What we needed with the Navy capability allowance was a short-term retention measure while longer-term financial and non-financial measures were put in place—the longer-term financial measure being the graded and other ranks pay structure, which the Navy has implemented today, and the non-financial aspects being those aspects to which Mr Minns referred, such as improving conditions for our submariners.

While there was some initial disquiet from officers, that has abated, I have to say, sir. The disquiet from officers about the \$60,000 differential between officers and sailors, for want of a better term, has diminished to the extent that I have not heard a complaint about it for some time. That is largely because the GOPS decision, which is the officers pay scale decision, has been well received by submariners and the broader non-financial conditions of service improved. The improvements were specifically directed at the submarine arm and that they had taken effect.

**Mr BALDWIN**—I guess we sit and wait to see how the massive enlistment into the submarine corps occurs. If all the pay and conditions are now fixed, there should be people lining up at the door to join the submarine corps.

**Mr Minns**—We still consider recruitment of submariners to be a challenge, and I think the Navy still does. The Chief of Navy in the last fortnight has discussed the Navy's response to the Moffatt review as a holistic and integrated approach to addressing factors that impact upon submariners. While we will always be looking at the reward framework, the remuneration framework for submariners and indeed the other critical trades that we have within the three services, the overwhelming theme that comes through the Moffatt review is the issue about the lifestyle of submariners and the way that their crewing arrangements operate, such as the issues dealing with shore leave postings and so on.

I think it is one of the areas in which it might be too early to say that the remuneration is totally fixed, but it is a broader range of measures that the Chief of Navy is pursuing that will have an impact. In a sense it goes to the theme of what we are saying to people who are contemplating a career as a submariner and what is the promise of employment that they can expect if they join the submariner FEG in the Navy. That is the point.

**Mr BALDWIN**—Right. Let me reflect on a lieutenant navigator with more than three years seagoing service and the steward on board is paid \$30,000 more over an 18-month period than they are. What does that say to junior officer ranks?

**Mr Minns**—One of the points that I have raised with the three services within the last year is that we have to start focusing on what I would call the critical talent categories of our organisation. There will be occasions when reward outcomes do not follow a traditional pattern because of the nature of the shortage we face in particular parts of our workforce. To get on top of the issues we face, we have to run a differentiation strategy around reward. I say that in the context of already making the point that retention bonuses are somewhat of a blunt instrument. Over time, what we have to do is see if we can create that kind of working environment that is more attractive, rather than off-putting for people to contemplate a career as submariners, and

then ensure that we keep adjusting their remuneration framework for both other ranks and officers so that we sustain the required number and that we grow the number.

**Mr BALDWIN**—Why would the \$60,000 have not been brought to every position on board the submarine to remain so that there were levels, according to skill and requirement? It was not just non-officers who were looking at getting out and going off to the mining industry. I think it was across the whole of the ranks.

**Mr Minns**—I am sure it is a question that would have been asked within the Navy at the time. It is not one that I can shed any light on.

**Capt. Hill**—I just reiterate that it was a DFRT decision. The DFRT decided, because of the pay decision with respect to officers, officers would not be eligible. There may be a capability allowance as a short-term measure to address shortfalls.

**Mr BALDWIN**—But the remuneration tribunal is not the oracle of all knowledge. We have seen that with the recent pay debacle that came down in March last year. Some of their decisions are so flawed that it is not funny.

**Mr Minns**—But they do make determinations that we are bound to follow.

**CHAIR**—Mr Thompson?

**Mr KELVIN THOMSON**—Mr Minns, from the overall situation, people would have gained the impression that the defence forces were short of personnel and wanted more people. Would you say that is still the case? What is the overall situation?

**Mr Minns**—We have grown in the last year in all three services, and that follows the previous year when we grew as well. We are managing to recruit increased numbers to the requirement that we have. We are not yet achieving all of our recruitment targets. However, our targets move up each year, so our recruiting performance is improving year on year. It is just not getting to the 95 per cent of achievement level. Our biggest challenge remains what we call critical trades. There are some 29 categories of employment that we consider to be at critical levels or at perilous levels. Those are mostly shared between the Navy and the Army. There is one critical category within the Air Force.

A lot of our recruiting effort now and a lot of the efforts of the services internally are focused on how we attract people into the particular trade categories in which we need a workforce. In essence, it is a whole-of-economy issue, and it is a global or whole-of-defence-organisation issue. When I spoke with colleagues from the UK, Canada and the US in February, they typically had the same issue around trade categories which were in high demand in their own economies. Their service organisations were struggling to attract their required share.

We have gone back to a very focused individual services brand based attraction strategy. If you have been watching the advertisements that we have been running in the last year, they go directly at these trade categories and they go after them in respect of each service. We have seen in the Navy things like the new initiative, named Plan Train, which is about making sure that they can get more sea time and training on a ship for particular categories, particularly marine

technician. We have also seen within the recruitment area a specialised almost job search kind of contract being let to try to focus on finding these sorts of particular trades and occupations.

The three services have been very active in recent weeks and months in reapproaching people with those trade categories qualifications who had left the service—and gone perhaps to the mining sector or perhaps to the construction section—to see if those people have an interest in returning. I guess the last point to note is that, at the direction of the CDF, we have formed a joint working group on critical trades to make sure that we are taking a three services or a joint perspective wherever we can. That has started to produce results with aircraft-related technicians.

We work in this space regularly. We are not happy with our performance and we are constantly trying to find different ways to get better results to both attract people ab initio into those trade groups and to see how we can transfer them within the services and in some cases, as I have mentioned, across the services.

**Mr KELVIN THOMSON**—In which skills is the shortage most severe? You said there was one in the Air Force.

**Mr Minns**—If I can just find the right brief, I will give you that answer. We try not to go into naming them specifically for reasons of some sense of security about the information, but we have 22 categories that we are focused on in the Navy, 13 in the Army, and one in the Air Force, as I have mentioned. The most prominent examples relate to engineering skills, submarine service, aviation, technical and medical. We track all of the critical trades pretty much all the time, but each six months we do a full reassessment of their status and their likely remediation over the next two to three years out to a decade.

Because they are specialised categories of work, just the way that occupation is designed and the way that it operates within the service can present part of the problem. To some extent, while we struggle to recruit people into some of these trade groups, we also have a problem around the throughput of the training system within the service in respect of that, and that is why things like the Plan Train initiative in the Navy are having a direct impact. We are trying to increase the capacity of the training pipeline to remediate particular trade groups. That sort of thinking is occurring across all the services. If you could give me a couple of minutes while you have the GORPS report, I could tell you how many improved in the last six months period, how many stayed stable and how many in our view worsened. I will just add that up.

**Mr KELVIN THOMSON**—That would be interesting. Finally, I come back to the question of separations which others have raised. You gave that figure of 10 per cent or 9.9 per cent for the last six months. How does that compare with what was going on previously?

**Mr Minns**—This sustained period under 10 per cent is probably our best performance for four or five years.

**Air Cdre Needham**—Yes.

**Mr Minns**—Tony would have the history on that. We expect, if we get to a rate of around eight or eight and a half per cent, that this is probably about as good as we could expect or hope

to achieve. In fact, if we have separation rates lower than that, we will start to generate some issues about the structure of the service workforce and the ability of people to work through that career structure in their time with the service. Below 10 is an improvement on where we have been in the last decade. We were this low a decade ago, from memory. We would like to see if we could knock another per cent off it, but we have some categories—I think officers is a good illustration—that are below six per cent.

**Air Cdre Needham**—No, seven and a half.

**Mr KELVIN THOMSON**—But how high did it get if it is higher than it is now.

**Mr Minns**—I would defer to Tony.

**Air Cdre Needham**—I would have to do some research on that and get back to you. I will take it on notice. But it did peak just after the defence reform program in the early 2000s. I cannot say exactly what it is. It was far larger than it is now. I will just make a point on separation rates. A certain level of separation rate is healthy for the organisation to allow that turnover to happen. About 10 per cent is a good figure as a rule of thumb. The figure is influenced by the skills that a person needs. Generally speaking, the higher the skill, the lower will be the retention because obviously there is a training lead time to replace people. But with lower skilled people, a greater separation rate is probably healthier for us.

**CHAIR**—It might be opportune to go back to where we were going to start and get a rundown on this new officer structure or pay structure.

**Mr Grzeskowiak**—I will just give a brief introduction to the graded other ranks pay structure, which, as you have just heard, has just been implemented today for the Navy and will follow for the Air Force and the Army in the next two months. What are we trying to achieve with the graded other ranks pay structure? Essentially it is to put in place a simplified pay structure that will endure for a number of years, that will facilitate increased differentials for people in terms of pay on promotion and that will increase differentials for people who up-skill within their trade or category. Compared to the previous pay structures, there is now a greater reward for up-skilling and promotion.

Also, to enable the roll-in of some of the bigger allowances that we used to call environmental allowances, which are the flying allowance, the submarine service allowance, the special action forces allowance and the special operations allowance. The previous pay structure could not really accommodate the rolling in of those allowances. To roll them in, what we had to do was add a whole bunch of extra pay grades onto the old pay structure, and it ended up with 16 pay grades. It was not very coherent, so we have taken the opportunity to restructure around the new rates of pay, which are in effect, with the allowances being rolled in.

The third thing is to enable us to use the pay structure in a flexible way through the Defence Force Remuneration Tribunal as we look at the various trades and categories within the ADF in terms of being able to match market forces in the pay that we offer to our ADF people. Our previous structures were a bit limiting in that regard, and that is why we are doing this. What do we hope to achieve? The impetus for implementation of GORPS came from two things.

Fundamentally, it is the last part of the remuneration reform project which flowed from the Nunn review of 2001, which was a review into the pay and conditions of the ADF.

The Remuneration Reform Project was pursued in four stages over a number of years. It went to the part of the Nunn review that said that we should seek to simplify our pay structures and we should seek to roll allowances into pay when that is sensible. So GORPS is the culmination of that four-phase project. I could go into some detail about those four phases, if you like. The other impetus came from the DFRT itself around the end of 2006 or early 2007.

The DFRT ran what it called the base pay inquiry. That was a piece of work that was done jointly between the Department of Defence, the now Department of Education, Employment and Workplace Relations and the tribunal to look at the relative pay of our ADF people compared to the broader Australian market. While the DFRT did not make any specific decisions on the outcome of that base pay review, that information in terms of relativities of ADF pay compared to the broader Australian market was used as primary information in terms of where we placed people in the GORPS pay structure, which we are now seeing rolling out at the moment. So that is where it came from.

One of other thing is that in December 2006 the then government agreed to a range of recruiting and retention measures, some of which we have just talked about, a range of bonuses that were seen as short-term bonuses necessary to encourage certain people to stay with the ADF in what was a time of high separation, and recognised the need to at least go some way to matching pay to those bonuses, which also drove the need for a reformed pay structure.

Progress so far is that the DFRT agreed to the graded other ranks pay structure placements formally on 24 December last year with a date of effect backdated to 4 September 2008. A piece of work started way back in April last year to plan the implementation of the new structures. That involves the replacement of approximately 37,000 regular members of the other ranks and a significant number of Reservists in due course into the new structure. Each of the services, the Army, the Navy and the Air Force, was responsible for deciding which category each of the people needed to be placed in, in line with the decisions of the DFRT, and that work has been done by the service implementation teams.

The chief information officer group was responsible for adjusting our pay computer systems to be able to accommodate the new pay structure, and that work has been completed. The Defence Support Group were responsible for managing the implementation and rollout of the new placements into the computer systems and into effect in terms of pay. The personnel strategies and policy group was responsible for the DFRT case and any issues that emerged from that in terms of policy. We have reached the situation at which today roughly 9,000 Naval other ranks members have been paid, they are into their new placements, and they have been paid their back pay to 4 September. I guess the next key milestone is for the Air Force. Their pay for GORPS is due to be effected in the middle of May. I think it will be paid on the payday for 14 May. The work to implement that is going well.

All of the Air Force other ranks have been mapped into the new structure and the data starts to be loaded into the HR and pay computers next week. There is a structured process that sees the data being put into the computers, checked, fixed where necessary and then the pay calculations run. Members of the Air Force will be able to look at their salary variation advice—payslips

essentially—on a Monday about 10 days before 14 May. I think it is around 6 May. From then on they will be able to ring up the implementation team in the Air Force if there are any queries.

We have had a look at how the Navy has gone. It has gone very smoothly, we think. We have had only a very small number of phone calls today to the Navy's implementation team. When I checked at 12 o'clock, it was three and they were all questions that were easily answered. Part of the reason for that is that we have had an extensive communications running within the ADF. In fact, in the *Navy News*, which I have some copies of if anyone is interested and which hit the streets this week, there is a centre page spread explaining what GORPS is and it has a brochure explaining where people are placed. This is probably the second or third article in that Navy newspaper. The *Air Force News* and the *Army News* are similarly running articles that are timed to coincide with the implementation for their services.

There were only three or a few more phone calls today to the Navy implementation team because last week we actually encouraged the Navy people to have a look at their salary advices. They were available last Monday automatically through the PMKeyS computer system. We had about 600 inquiries last week from the Navy—about half from the phone and about half by email—just asking a range of questions of the Navy team about what GORPS meant for them. I am advised by the Navy that all of those inquiries were able to be answered. None of them have pointed to any systemic errors or problems in terms of where people are placed or how the calculations through computer systems have worked.

As I said, at the moment I am fairly confident that GORPS has gone well for the Navy. It is looking to be on track for the Air Force. The Army is due for a payday in the middle of June and then we will do the Reservists. That is currently planned for August. Clearly we are learning lessons that we find from the Navy implementation and we are feeding those into the subsequent Air Force and Army implementations. That is not to say that there will not be the odd error in there somewhere. We are adjusting the pay of 37,000 people, so it will be pretty unlikely that no errors will occur. But if they do, there are people who are skilled and available to get the errors fixed up quickly.

**CHAIR**—Thank you for that, and thank you for supplying the circular or pamphlet that has been published in the *Navy News*. Just quickly looking at it, it appears to have the pay rates under the new structure. Is there a table that shows us the before and after?

**Mr Grzeskowiak**—There is not in that publication, but I could provide to the committee a copy of the previous pay rates. However, I do not have that with me today.

**CHAIR**—If you could provide a table showing before and after and which tabulates them, we will be able to quickly identify what it actually means in terms of pay packets. I am sure that is the news people are interested in, although they would have a pretty good idea of what the 'before' was, whereas we would not. I guess they know what they are getting.

**Mr Grzeskowiak**—We will take that on notice. One of the key fundamentals of the whole GORPS is that nobody goes backwards in pay. There are a number of categories of people who are placed under GORPS on a lower pay point, but anybody who is already in that category will have their pay preserved. Therefore there will not be any reductions in pay. Probably about half of the other ranks will receive a pay increase as a result of this process. The cost of

implementing GORPS in terms of increased salary and the flow-on to superannuation is of the order of \$2.4 billion over the decade.

I have just been given some figures that show 3.4 per cent of sailors gained more than \$7,000 per annum; 15 per cent of sailors gained between \$4,000 and \$7,000 per annum; 25 per cent of sailors gained between \$2,000 and \$4,000 per annum; 55 per cent of sailors gained more than \$2,000 per annum; and 0.7 per cent of sailors will require non-reduction provisions to ensure they do not go backwards. It is generally a good news story for people out there. There will be similar figures as we roll through the other services as well.

**Mr HALE**—Are we still on GORPS, are we?

**CHAIR**—Yes. Does anybody have anything else on GORPS? Since the answer is no, it is over to you.

**Mr HALE**—Recently I met with some of the spouses of ADF members in my electorate. Generally you get a raft of different issues to do with health, education and housing, but one of the ones that was very interesting to me was that they believed it would help spouses and families with morale and retention—and probably 90 per cent of them were women whose partners mostly were deployed in the moment either in Afghanistan, Iraq or Timor—if there were more training opportunities for spouses of personnel in the ADF and if the services could actively encourage or help to train them in a field where there may be a shortage.

Some of them were talking about allied health types of services. A lot of them have health issues with their children as well. ADHD was quite common among the group. They were saying that they would like to have more encouragement from the ADF for spouses in regards to training. Are there any initiatives that possibly the ADF could take up with government to address this issue?

**Mr Minns**—Mr Hale, there is an existing scheme about spouse employment and providing assistance, particularly in the case of postings and relocations. I do not have details to hand on it. We could provide you with some details about that scheme. It does go to providing assistance in finding employment in a new location. I suspect it does not go to the question of formal training opportunities and facilitating those. But I can certainly find out what is currently covered by that policy.

We know from the Defence Attitudes Survey and also from the ADF Families Survey that we did in the last quarter of last year, and the results of which we are still cleansing, that we got consistent feedback relating to the impacts on partner careers being a source of dissatisfaction. One of the interesting things that comes through the families survey is that it is a number above 75 per cent of partners who say they have not sought to influence the decision of their partner to stay or leave the service. The reason we did the families survey is that we are aware of the relationship between the pressure on the family and the cumulative effect of having a partner in the service. At some point you reach a tipping point when, even if the member wishes to stay, they make an assessment that maybe it is not in their family's interest.

We would be looking to finalise the review of the families research and review it in the context of what we will have available as funding under the new white paper arrangement. By

working with the services, we will seek to prioritise what we do. It is probably a bit hard to be more definitive than that at the moment, but certainly I will get details on the existing support framework that is in place and I will get them to the whole committee.

**Mr HALE**—No worries. Thank you.

**CHAIR**—Mr Robert?

**Mr ROBERT**—Mr Minns, can I direct your attention to the Australian Defence Force Academy? What is our current separation rate at the academy?

**Mr Minns**—That is not a question on which I have data with me here. I would probably be able to get it before the end of the day.

**Mr ROBERT**—Great. The next question is: If cadets, for example, an Air Force or an Air Force pilot, fails a subject and is scrubbed out, are they offered another opportunity within the Air Force or into a non-flying area of the Air Force?

**Mr Minns**—It is a question I will defer to my service colleagues.

**Air Cdre Needham**—I guess we have to have an answer from Air Force personnel on that and how they would treat that. Having worked in Air Force personnel before, but not currently, I am able to say that it would largely be dependent on the circumstances of the situation. I expect that they would normally look to offer another opportunity, but the reason that the person failed initially would influence the opportunities that could be offered subsequently. That is my perception from previous experience. I could not give you the exact up-to-date policy now.

**Mr ROBERT**—All things being equal, if the cadet were to fail a subject and there were no other outstanding issues, we would expect to offer them something else, considering that the Commonwealth has just spent a fair bit of money over a couple of years on educating and training them?

**Air Cdre Needham**—That would be a large factor involved but it would also be the choice of the student and what they wanted to do. For example, if they were an engineering student and failed some subjects that were important to following that career path, changing to other opportunities within the officers corps might be difficult. There might be non-commissioned opportunities. It would be a combination of a discussion between the individual, their aspirations and the availability of opportunities at the time.

**Mr ROBERT**—So you would expect a discussion to occur in such a circumstance?

**Air Cdre Needham**—Yes.

**Mr ROBERT**—Captain, how does the Navy deal with things like that the academy?

**Capt. Hill**—We would deal with each case on its merits in much the same way as in the Air Force procedures that have just been outlined. It would be difficult for me to say now that we would deal with each case the same way. I think each case would be dealt with on its merits.

**CHAIR**—I want to quickly ask a question about the gap year. There is some comment on it in the annual report and reference to the success of getting people into it. I want to know what sort of qualitative research we do in respect of those participating in the gap year. Do we know when they join the gap year and why they are joining? Do we know whether they have an interest at that point in perhaps taking on defence as a career? Do we know what their attitude is at the conclusion of the gap year?

**Mr Minns**—Chair, we have a longitudinal study of retention. I am pretty sure the gap year population is in it. It is designed to answer all those questions.

**CHAIR**—It is not just quantitative. It is not just going to tell us that 80 per cent of people who went through the gap year applied for full-time service, or whatever it might be. It will tell us that before they commenced the gap year, this was their attitude. When they left the gap year, something else may have been their attitude.

**Mr Minns**—It certainly will have that information, but we have not conducted it yet. I think gap year is due for that formal assessment in 2010-11.

**Capt. Hill**—Certainly from a Navy perspective, Mr Chairman, we are closely monitoring gap year. Those people who are charged with supervising gap year participants speak with them frequently. They are spoken to when they arrive at Recruit School in the case of the Navy and undergo a qualitative information-gathering process as to why they joined. Their progress is monitored through the 11 weeks of Recruit School, and when they go into the fleet and other establishments they are assigned a supervisor who similarly monitors their progress.

They are interviewed at the end of the program, so in tandem with the qualitative data that we can tell you from the Navy's perspective, 30 per cent or thereabouts of the first 100 participants subsequently transferred to the regular Navy. I am confident that the internal study we have commissioned at the end of the first year, which will be in May this year, will also contain a good deal of qualitative data as to the attitudes of those people when they joined, their attitudes throughout their training and, importantly, their attitudes when they left.

**CHAIR**—I would be interested to have that information when it becomes available. Thank you.

**Mr BALDWIN**—I have a question on the gap year.

**CHAIR**—Mr Baldwin?

**Mr BALDWIN**—What is the take-up of gap year people in the Army, Air Force and Navy this year?

**Mr Minns**—The 'this year' part of the question can make that a bit difficult. If we talk about the 2008 cohort and the 2009 cohort, although the principal design of the program is not to achieve people joining at the end, it is certainly an option. As at 1 April 2009, 221 of the 2008 cohort had transferred to the permanent forces.

**Mr BALDWIN**—No, that is not the question.

**Mr Minns**—No?

**Mr BALDWIN**—How many young people went into the gap year program to start with?

**Mr Minns**—In 2008, it was 700—500 in the Army and 100 in the Navy and Air Force. In 2009, the numbers are 267 in the Navy, 321 in the Army and 112 in the Air Force.

**Mr BALDWIN**—It was 321 in the Army, and how many in the Air Force?

**Mr Minns**—It is 112.

**Mr BALDWIN**—Was there not supposed to be 1,000 in the gap year in 2009—500, 250 and 250?

**Mr Minns**—We had an intent of looking at moving it from 700 to 1,000. When we looked more carefully, I guess, at the capacity of the training systems of the services to integrate those numbers, particularly led by a concern that it was going to play a role in perhaps cannibalising normal officer intake in the Air Force, we went back and revisited how we would remix the numbers. We took to government a view could we not grow to 1,000 at this stage? When we did that, we also worked with the three services to remix the numbers.

The Navy's decision to move to 267 was illustrative of the fact that they have a sort of gap compared to their trained force versus their demand. The view was that they would take up more—and significantly more than 100 in the first year—as a way of trying to give people exposure to a Navy career. They felt they had the capacity in their training pipeline system and they stepped up to that number. The Air Force grew modestly and the Army came down, reflecting what was thought to be a more sustainable level, just based on all of the training requirements of the three services.

**Mr BALDWIN**—I remember reading a press release from the minister that they would pursue the 1,000 places for this year.

**Mr Minns**—The context surrounding that was that the minister had been advised by us that we felt that we would grow from the original 700 to 1,000. It was the result of internal Defence review and consideration that we sought—because it is a retention initiative under the R2 package—the agreement of the Prime Minister to come back to this level that Defence felt was more sustainable.

**Mr BALDWIN**—So what was the reason for the reduction in round figures of 180 in the Army—accommodation, training capability? Why was there a reduction of 180 in the Army?

**Mr Minns**—I think it is all of those things. I do not know off hand.

**Mr Grzeskowiak**—All of those.

**Mr Minns**—Yes.

**Mr BALDWIN**—Okay.

**CHAIR**—We will have a last question on this from Mr Hale and then we will move on to the services pay.

**Mr HALE**—Just in relation to the gender imbalances that are a feature of the ADF and even more marked in the officers ranks of the ADF. Can you tell the committee why this is a concern to Defence, and what consequences it has for Defence's efforts in recruitment and retention? What targets does Defence envisage in respect to the gender balance in its workforce?

**Mr Minns**—Mr Hale, I guess the Defence view is that, where possible, we would like to reflect the community that the organisation serves in terms of its composition. That is a grand aspirational goal. We are some significant distance from it in respect to women in the ADF. The gap will not be closed instantly or quickly. Essentially for reasons that are structural in nature, not all of the occupations within the services are open to women, for example. It is quite a lot—it is 92 per cent of the positions—but significant and large components of the Army, for example, are not areas that women enlist in. Indeed they are the areas in which we have seen growth in the last three or four years.

Our view would be that we are making progress; that the three services are seriously looking at options to make their service more attractive to women entering and to make the experience of women within the service consistently improve so that retention goes up. With the CDF, the Chief of the Defence Force, and the minister and with the support of the service chiefs and me, we talked about the idea of having a women's reference group. It was established in the middle of last year with the aim of getting some external perspectives and views about what might be the reasons why the ADF is not making the progress that would be considered more helpful than it is currently seeing.

One of the most important points to come from that reference group were the observations of senior women in large organisations that there is critical mass point and there is an area of breakthrough performance. It is around about 20 per cent and above of our workforce being women. One of the reference group members is from the mining sector. Some parts of the mining sector have a lower representation rate of women in their workforce than we do. The clear observation of all members of the reference group was that we are sitting at about 13.6 per cent and getting critical mass and getting a shift in culture that then becomes self-supporting and reinforcing from that point. It will not happen until you get above 20 or 25 per cent.

The three services are currently working with my group on an integrated view of all the initiatives that already are in train, and some new ones that are being considered, to take forward to the CDF and the chief of service committee—in July, I think it is now. On its way it will go through the women's reference group for their comment and review. It will represent the critical things that we think we need to really concentrate on because again one of the observations of the reference group was that to get to that breakthrough point, it is perhaps better to concentrate on five or six critical issues rather than 56 worthy initiatives.

At the moment we are trying to clarify with the three services what would be those breakthrough initiatives that we think will have the most impact. But to give you a couple of examples of the things we are considering, I mention that we have women who served in the Middle East area of operations and have performed to exceptional levels of performance. We are not currently telling a lot of people about it. So that idea of role modelling and making it more

evident to the community is known within the service, but perhaps it is not known well outside the service and outside the Defence organisation. That is an example of looking at some of the people who have been successful and have achievement in their career and being more deliberate about telling that story as a way of getting the message out.

I have said in the past before this committee and in the Senate estimates committee that the gap year is a good opportunity for us to give people up close and personal experience of what it means to be a woman in the ADF. We are quite pleased with the results and quite pleased with the number of women who have decided to transfer as a result of that gap year experience. I think that the Navy particularly has that view.

**Capt. Hill**—Nearly 50 per cent.

**Mr BALDWIN**—I ask you to take on notice and provide to the committee across the three services how many females are in each of the ranked positions and non-ranked positions.

**Mr Minns**—Yes. We should be able to do that.

**Mr ROBERT**—Could I just add to that a breakdown of females in the three services who are currently deployed overseas?

**Mr Minns**—I cannot hear you, Stuart.

**Mr ROBERT**—Of the number deployed overseas—1,096, or whatever, in Afghanistan—how many of those per service are women?

**Mr BALDWIN**—Could you also include in that the females in the highest rankings and the breakdown of the rankings in the civilian Defence employment or the public service?

**Mr Minns**—Within the civilian workforce?

**Mr BALDWIN**—Yes.

**Mr Minns**—Okay.

**Mr ROBERT**—What percentage of our allies defence forces are women—the US, the UK, Canada?

**Mr Minns**—I do not think our numbers are vastly different, but again I take it on notice and I will come back with detail for you.

**Mr ROBERT**—That would be great. Let us just take it as read that our numbers are not vastly different, which means that every single one of our allies is facing the same issue. Why are we busting our guts to try to move from 13 to 25 per cent when every other country is finding that difficult to achieve?

**Mr Minns**—Perhaps I should just make the point that we have not set a target of 25 per cent. That was an observation of the reference group members that it is at that point that you achieve critical mass.

**Mr ROBERT**—You then went on to say that you were combining all of the current initiatives, bringing up things to the chiefs group in July, and run it by the reference group again. It was certainly implied that that is where you were heading.

**Mr Minns**—In setting targets, we have to make them mathematically achievable. The Army case is illustrative of why it is a challenge. As the Army grows through the ELF program, it is essentially growing its infantry ranks. I am sure I will be corrected if I get this wrong, but that is an area of employment and classification that women cannot enlist in. So the Army is actually growing that part of its workforce from which women are excluded while it is trying to grow women in its workforce. You could set an aspirational target for the Army, but it would be mathematically unachievable.

We have a target of trying to improve our enlistment performance of women through the recruitment activity and that is around the 20 per cent level, but we are currently reviewing it see again if it is a realistic and valid target to put effort and resources into. The simple reason why we are interested in seeing more women in the ADF and more people from a non-English speaking background within the ADF is the notion of talent in the economy. If we have classes of the external labour market and if you think they do not belong, we reduce the pool that we are recruiting from. Recruitment is hard enough as it is without crossing people off the list.

In essence, we are trying to make sure that people who could be successful in the organisation know that we want them and know that we have a culture that is welcoming to them and so that we do not have any classes of that external labour market population writing us off.

**Mr ROBERT**—I noted with interest, Mr Minns, that in the session before lunch with all of the DMO and all the generals in the room and everyone else, there was one female in the room out of about 50.

**Mr Minns**—Yes. Look, I have made the observation that this is the first senior executive team I have worked on that does not have woman on it. That is the fact of Defence at present. Partly what we are trying to do is see if we can put in place the right sort of initiatives that, over time, will shift that.

**CHAIR**—I welcome to the table the Chief of Army. It might facilitate broader discussion if the next session, which will deal with human resources and pay systems and has a fair degree of overlap with recruitment and retention anyway, if we deal with those together.

**Lt Gen. Gillespie**—If I might I would like to answer that last question.

**CHAIR**—Please do.

**Lt Gen. Gillespie**—It is pretty clear to me, as chief of the service, that with the social issues in our country—the ageing population and all of those factors including that women are 51 per cent of the population—we struggle to get manpower in a man's environment in the issue, so we

would be absolutely bonkers to persist in not trying to get women into our organisation. We have got over the hump of the man's club issue in the Army and I think in the Defence Force.

The women we have in our force are absolutely outstanding. There is a bow wave of women who have come through under the equal charter of men, doing all the same courses and career progressions at the lieutenant colonel or early colonel level in our system. In six or seven years time when we are sitting here you will find a whole bunch of very senior women sitting here and doing this sort of thing. The talent coming through is absolutely extraordinary, and there is no reason to think that it would not be.

I am going to pursue as many women into the Army as I can find. The thing that I have to do is make it attractive for women. There is a whole bunch of issues there that we have to do a lot more work on. I cop a lot of abuse at the present time because the participation rate of women has actually decreased. But it has decreased because they are only entitled to fill 67 per cent of the employment categories in the Army, and we have had a big focus on increasing those employment categories that they are not entitled to join—the Enhanced Land Force and the HNA sort of approaches.

Actually, if you look at the 67 per cent that we have, the participation rate of women in the Army has increased from about 11 per cent to 13 per cent. If I can keep that slowly creeping up each year, I will not reach 25 per cent for quite a while. But if the Navy and the Air Force are doing pretty well at it at the present time and can reach that sort of mass, then it gives a brand to the ADF that will help us along the path as well. Your question was: Why are we beating our heads about it? It just makes absolute sense that we have to keep after women and get them interested in our service.

**Mr ROBERT**—I agree. General, what are our allies doing—the American, the Brits and the Canadians—if Mr Minns' point, albeit without the numbers in front of him, holds that we are not vastly different?

**Mr Minns**—I have them now, if that would help. Canada is 13.3 per cent; New Zealand is 17 per cent; the United Kingdom is 9.4 per cent; and the US is 14.4 per cent. We are currently at 13.6 per cent.

**Mr ROBERT**—What are our allies doing with respect to making the services more encouraging and welcome for female soldiers, sailors and airmen?

**Lt Gen. Gillespie**—I think the biggest thing that all of them have been focused on is removing the policy that was discriminatory to women in that whole process. I think I would go on record—and I think the women's focus group has said it—to say that the policies in our defence organisation for equal opportunity in our Defence environment are among the best in the country. We have cracked that part of it. One of the questions that I found really interesting when you were talking about the gap year earlier, and one that I want to find answers to, is that we had an amazing number of young women apply for the gap year at percentages far in excess of what we could expect annually to ask at the recruiting desk to come in. Why is that? What is the factor behind it?

We have been debating whether or not it is the mum factor: you know, that mothers are not prepared really to support and sponsor their daughters to go into the Army for four years, but they will give them a crack at it for 12 months with a free exit card if they do not like what they are doing. Maybe that is why there has been such heavy participation rate of young women, and it is nice to see in the Navy, the Air Force and in the Army the number of gap year women who are staying on and doing the business.

**Mr ROBERT**—What percentage of the 500 who came into the Army last year are women? Captain, I believe you said that the complement in the Navy was about 50 per cent.

**Capt. Hill**—Yes.

**Lt Gen. Gillespie**—I will just get my director general of personnel to come to the table so I am not misquoting. He has the facts and figures.

**Mr ROBERT**—Captain, of the 30-odd who stayed on, what percentage of those are female?

**Capt. Hill**—I could not actually answer that from memory.

**Mr Minns**—I could. It is in the order of half of the Navy people who transferred to permanent.

**Mr ROBERT**—So the 50 per cent has flowed right the way through?

**Capt. Hill**—Following what the Chief of Army said, it would be fair to say that from an allied perspective, our allied navies are facing the same challenges as we are. Our allied navies and we are fairly popular in the recruiting sense. The Navy's participation rate for females is currently 18.3 per cent. Nearly one in four of our people undergoing training are female. The challenge for our Navy and for our allied navies is keeping those people. It goes to what the general said. We are an attractive organisation, but it is remaining attractive and making a service lifestyle—in our case particularly a Navy lifestyle—conducive to doing all those other things that people want to do with regard to family and so forth.

**Mr BALDWIN**—What is the separation rate for women across the three services? Is it higher than it is for males? Are females doing one term of engagement and then pulling out?

**Mr Minns**—This is detail that I can get to you accurately.

**Mr BALDWIN**—Yes.

**Mr Minns**—But something like 52 per cent of males will leave the ADF inside 10 years, and the number is either 72 or 78 per cent of females. We have seen some narrowing of that gap. It does point though to a sense that women are seeing a career as something that is a within-10-year stint, but a good half of men who join the ADF see it that way as well.

**Mr BALDWIN**—When you are doing that statistical analysis, can you also provide information on whether there is a correlation between people exiting Defence and going across to Defence public service?

**Mr Minns**—I suspect we could. It might take us a while.

**Mr Grzeskowiak**—It could be difficult to get that.

**Mr Minns**—Yes. It will go to the integrated or non-integrated nature of our HR systems, which I think the committee is aware of.

**CHAIR**—We now will pick up from where the Chief of the Army left off.

**Brig. Fogarty**—You have heard the chief say that currently about 10 per cent of the Army is made up of women and approaching 13 per cent of positions that are available to them. In the gap year, we had 20 per cent of the intake in the first year who were women, which was a very pleasing result. We did a lot of research with Phil Minns' organisation to track the reasons why it was so attractive. We know that out of the first year of the gap year about 30 per cent of the applicants said they would never have considered joining the Army if the gap year program was not available to them. So we knew immediately that we were tapping into a new segment of the population. As described by the chief, their principal reasons were that a one-year program with no risk and the option to leave at the end was very attractive.

We had several focus groups, with 20 per cent who were women, ask why particularly they were interested and again it was because it was a one-year program with no risk. They could try it, and if they liked it they would stay. On the back of that, the Army has been considering spreading out into a number of our categories a reduced initial minimum period of service. Currently our initial minimum periods of service range from four to six years, depending on the trades—the more technical trades are six years so that we get a greater return on our investment—but there is an opportunity to have a reduced initial minimum period of service in some categories of perhaps two years to leverage off some of the success that we have had in the gap year and to try to target a broader segment of the community.

**Lt Gen. Gillespie**—I might add there that that will be non-gender specific. It will just focus on some areas and trial a two-year minimum period. In some of those areas where we hope to attract women, yes; but it will be open to both genders.

**Mr BALDWIN**—You have done these studies and tracked generation Y and their expectations and generation X and their expectations. What will be the expectations of generation Z in trying to get them to come on board into the military?

**Brig. Fogarty**—There is a lot of research about the different generational groups. My personal view on this is that the Army in particular generally attracts a certain type of individual, which we see as consistent across all these generation groups. It is only in the margins where the attitudinal change is making an impact. I think, as I have described, the ADF gap year has picked up a new segment that we were not tapping into before. We are trying to learn from that and adjust and change our approach. You have heard some of the recruiting approach change from Mr Minns.

**Mr Minns**—I would add that there is a bit of a debate within the HR community about whether or not the research observations about different age cohorts are accurate in respect of that workforce for its whole life or whether it is just the stage of their career. One of the

characteristics of generation Y is meant to be that they are interested in portfolio careers and expect to have 16 or 17 different forms of employment and they are not interested in security. I expect from before joining Defence and working with a lot of generation Y people in the consulting sector and hearing them contact me about their current employment scenarios, that is probably being challenged a bit for that generation at present.

How much is it a characteristic of the generational cohort? How much of it is a factor of the time of their life and the state of the economy? We do know that a large number of the people who join the ADF are predisposed to being a joiner of the ADF and they will make that decision based on what happens in the recruitment process and the sense they get as to whether or not what they felt they were going to experience is likely to occur. What we are trying to do in recruitment is work on the people who are neutral towards the ADF; they do not really have a view one way or the other, but perhaps they are influence-able to consider it. That is why gap year represents such a learning opportunity for us.

I think there is a try before you buy component going on. I think we are probably picking up some people who always wanted to join us anyway, but at least we are not only picking up that cohort. We are extending into that neutral part of the external labour market that has not really had a contact or experience with the ADF. The suggestions that Gerard has mentioned the Army is considering about minimum enlistment periods is a good application of that experience from gap year.

**Brig. Fogarty**—I will make one more comment about the gap year. Measuring from the Army's perspective the success of the gap year is a very difficult prospect. Transferring into the regular Army is not necessarily our measure of success. Because we are tapping into this different segment, we want this group to have a successful one year and then go back in and talk among their social network about what a great experience they had. That gets to what Mr Minns is talking about—changing the propensity of the join discussion that occurs in this new segment in the market place.

**Mr ROBERT**—Brigadier Fogarty, are you able to cast some light on what Canada, New Zealand, the US and the UK are doing with respect to attracting more females into their respective militaries?

**Brig. Fogarty**—No, I am sorry. I cannot.

**Mr ROBERT**—Have we done any work on analysing what they have found is effective or not effective, or what they are using?

**Mr Minns**—We have done that, Mr Robert. The report that I read to you earlier is a paper in 2008 dealing with comparisons with other services. Having spoken with some of the other services earlier in the year, I find that they likewise are using strategies to try to raise the profile of women within their service to talk more about the success stories that the Chief of Army has mentioned.

Essentially, we all confront the issue that it is a matter concerning culture and perceptions of culture. That is why that critical mass argument carries some weight. It is about the internal dialogue within Defence and it is about how people with experience communicate with other

people in the community to tell them about their experience, their time within the service and their contact with it. If the broad message is positive and there are enough people carrying that message, then you start to shift away totally from the idea that it is not an organisation that is a suitable place for a young woman to go or to join.

The point that I have been making since I have been in Defence and looking at this is that Defence has dealt with what you would call the deliberate or specific discrimination. It is not there. It is an organisation that has zero tolerance for people who practise that form of overt discrimination, but it is an organisation that, for a significant part of its history, did not have women in it. So it has many cultural traditions and many policies that were framed in that time frame. You have to make sure that you are working through and addressing those areas. They are kind of like systemic bias: They are not intentional, they are not deliberate, and they are not overt, but they are perhaps still lurking within the organisation historically.

**Lt Gen. Gillespie**—I can give an example of that. Until last year, the retirement age in the Defence Force was 55, and then we made it 60. The men structure for command going through to becoming a unit commander and to general and all the rest of it was based on people going through gates that got them there, and they started to pay off between 52 and 55. One of the common criticisms that we had of that sort of process is that that was unfriendly to women, particularly if they wanted to be women who had a career and a family because the gates were so close together that to get through them you really had to forgo the family to be successful, or you had the family and then you could not go through the gates. That was one of the issues.

We have this wonderful situation at the present time whereby extension of the retiring age by five years, if nothing else, gives us five years we can insert in between the gates. That is a great policy and not necessarily just for women because it does say that over a career there is room for you to have five kids, if you want to, in that sort of process. But it also says to men whom we might want to send off to Harvard or to go out into industry for 12 months to gain some skills that they bring back to refresh out profession as we go through that we are going to do that. If you like, we have good policy. We have a happy circumstance of five years up our sleeve now so that we keep people in the system longer to 60. That allows us not to give up any standards at all on our gate. We can do that, but we can introduce gaps where people can take time off for all sorts of reasons.

We are hoping that those sorts of initiatives and the fact that we are doing it not specifically for women but for the workforce in general will work. There is an increasing number of single parents who are men in our organisation involved in this sort of process. Our women are telling us, 'Don't get into positive discrimination to support us. We don't need that. We're doing quite well in our right.' But there are little things. For example, I wonder how many women will front up to give the address in all the little RSLs on Anzac Day wearing their medals as veterans. We are looking at that right now. That is the sort of message that Australia needs to hear. We actually have a lot of women.

In fact, I think you asked the wrong question of us earlier about the number of women serving overseas because that is a given point in time. The questions to ask would be: How many women have served overseas and the total number of people in Afghanistan or Iraq? The answer is that the numbers are getting up. If you ask us at a point in time, it might be one of those cycles where the female numbers are very low but there are other cycles where they are quite high.

**Mr ROBERT**—Well, take some liberty with the question, General, to provide a more holistic answer.

**Lt Gen. Gillespie**—Thank you. We see the Chinook organisation that is in Afghanistan at the present time. It is a really professional, strong, dangerous environment in which they are operating, and it is commanded by a young woman who is doing it magnificently. They are the stories that people need to hear. If we can cash in on those, if we can get you, the press and ourselves and public engagements to show women in that light, then hopefully it will start to feed that we are not a man's club and that actually we have some really clever young women who are trail blazers and who are doing a great job.

**Mr ROBERT**—What are the next few initiatives up your sleeve, General? You spoke about the retirement age extending from 55 to 60, which sounds great. What do you see as being next?

**Lt Gen. Gillespie**—One of the things that the services have to start doing is that we have slipped into a service provider relationship where we have a contractor who recruits for us. We have been waiting for the product to come to us. We do not sell ourselves well enough. We have to get back out there and do it. We have to ask ourselves why, if we have a young woman who is doing really well in aviation in a war zone at the present time in the most challenging environment, we do not have a lot more women flying or applying to become pilots or technicians in the aviation field? It is our job as the services to go and do some work on that and potentially rattle the cages of a lot of girls' schools around the country, and fly in helicopters and teams to interest these young women in what it is their compatriots are doing in the Defence Force, unheralded.

**Mr ROBERT**—Do we still send teams to schools as part of our Defence recruitment?

**Mr Minns**—Yes, we do. What we have done with the structure of recruitment in the last 18 months is see if we can focus the uniform members of the recruitment organisation on time in the market—visiting schools, visiting events, et cetera—and we have tried to make use of non-uniform people in the back office who are doing the tasks that do not necessarily a member of the military. There is a schedule of events, and Defence Force Recruiting works on that with the three services.

**Mr ROBERT**—Does every one of those teams have a female services person with them?

**Mr Minns**—I am not sure that every one of the teams would have one. Not every visiting team would have one, but certainly if you go to the major recruitment centres where we have those externally focused groups, I would be surprised if there is not a woman in each case.

**Mr Gillis**—And there are other initiatives, such as putting our best people into the recruiting centres so that we have the right people attracting young Australians and who can answer the questions, not people who have been sidelined and it is a place for them. We should put our best people there, and a lot of conscious and focused effort. It hurts us in some areas but we realise that recruitment is really important. It is not the more important of the two things that we talk about. In my opinion, retention is much more important than recruiting although they go hand in hand. For every person you retain, the business case for those is just overwhelming. It is saying that retention is what there is interest in.

One of the great initiatives that we have had, which is helping recruiting at the present time, is that we have a program in the Army called Stay Army. People say, 'Look, I have been at this for 10 years as an infantryman and I've done enough overseas and all the rest of it, and my family and I want something different.' We are saying to them: 'Well, why don't you do something different in the Army? You don't have to get out to do something different. There are other trades.' We are finding a really strong response to this. What we have is a lot of internal movement now. We are able to coax some of these people who have a proven track record, who are well trained, who have supervisory and leadership skills, et cetera, to transfer to some of those critical trades and to undertake training and then give us another 10 years in that sort of area. There is a basket of those sorts of initiatives, and the two-year enlistment is another one of the things we are looking at in that regard.

**CHAIR**—Are there any other questions on personnel, human relations or management issues?

**Mr BALDWIN**—No.

**Mr Minns**—Chair, I have some answers to some questions that were asked.

**CHAIR**—Please go ahead.

**Mr Minns**—I think Mr Robert asked for ADFA separation rates. From a total undergraduate population of 1,017—I presume these are year to date numbers—we have seen 10 exists this year. Seven of those were in first year, four in the Army and three in the Air Force; three were in second year, one in the Army, two in the Air Force; and there were none in the third-year students.

**Mr ROBERT**—Probably last year is the best record date. In 2008, after a full 12 months and if it is still three years, out of a class of 200 who go through, three years later how many are still left?

**Mr Minns**—Okay. We will work with the ADFA team and get you statistics on that.

**Mr ROBERT**—It is just to get a view. We know what the separation rates are for the three services in general terms. This is now just focusing on one particular area where we grow the majority of our officers.

**Mr Minns**—Okay.

**Mr Gillis**—Again you should understand that the separation rate is not necessarily a true account because you will see that the Army started with so many and ended with some. You need not make the assumption that they have all failed. A lot of them transfer to the other services while they are in there, and vice versa. The starting and finishing numbers need to be about people who have actually left the organisation, and not transferred between the services.

**Mr Minns**—Just another answer to a question, Chair. I have been advised that the highest level of separation rate in the last decade is 13.98 per cent in June 2001. I mentioned to you that I would be able to talk to you about movements around the critical trades areas. If we take the Army, essentially the view would be that in the last six months 12 of their critical trades have

remained stable: they have neither improved nor worsened. One has worsened, which is dental care officers. If we talk about the Air Force, it only had the one, which was a medical trade. It stayed stable.

If we talk about the Navy, it has seen 10 trades improved in the last six-month period. Seven remained stable and five worsened. That is taking a view of what the trained force requirement is or the establishment number, what the trained force supply is at present, what the gap is and what has happened in terms of recruitment ab initio, transfers within the service and rates of discharge. It is quite a holistic assessment of the health of the trades group.

It remains the case that people in the Navy, the Army and the recruitment organisations are very focused on these matters. The joint working group is trying to understand if in part some of the problems we face are about the design of the work, the design of the trade, or the design of the training solution that we currently have in place.

**CHAIR**—Thank you for that advice. I thank all who have appeared before the committee this afternoon. There will be a transcript of the proceedings made available to you. You should peruse that to make any necessary adjustments of spelling, grammar and other minor issues that may need to be addressed. The committee will be conducting a further hearing although I suspect that it will not be on the matters that we have dealt with this afternoon. There were some issues from this morning's session of the review that we did not get to deal with and a number of senior officers were unable to be here for understandable reasons, such as that they had other requirements on their time. I think there are also a couple of other outstanding matters that have not yet been answered, so if could you take them on notice and provide the secretariat with that information, that would be appreciated.

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

That this subcommittee authorises publication, including publication on the parliamentary database, of the transcript of the evidence given before it at public hearing this day.

**Subcommittee adjourned at 4.00 pm**