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PARLIAMENTARY JOINT COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE

Department of Defence annual report 2011-12

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PARLIAMENTARY JOINT COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE

Thursday, 16 May 2013

Members in attendance: Senators Mark Bishop, Fawcett, Furner and Mr Adams, Ms Brodtmann, Mr Champion, Mr Fitzgibbon, Dr Jensen, Mr O'Dowd.

Terms of Reference for the Inquiry:

To inquire into and report on:

Department of Defence annual report 2011-12

WITNESSES

BROWN, Mr James Alexander, Military Fellow, Lowy Institute of International Policy

Subcommittee met at 11:18.

SUBCOMMITTEE CHAIR (Senator Furner): I declare open the public hearing of the Defence subcommittee's review of the Defence Annual Report 2011-12. Although the subcommittee does not require you to give evidence on oath, I should advise you that these hearings are legal proceedings of parliament and therefore have the same standing as proceedings of respective houses. Giving of false or misleading evidence is a serious matter and may be regarded as contempt of parliament. The evidence given today will be recorded by Hansard and attract parliamentary privilege. Do you wish to make a statement before we proceed?

Mr Brown: Thank you very much for having me along today. I know you are busy, and I know the role of your committee is very important. I know that my former colleagues in the Australian Defence Force appreciate the important work that you do. I think, particularly, your recent inquiry into wounded soldiers has had a great impact within the Australian Defence Force. I have the luxury of over 10 years of education in the military, understanding how Defence works and understanding that complex beast, and I hope that I can provide some useful information for your deliberations today.

In 2005, a Navy Sea King helicopter crashed in Nias Island, and not more than 200 metres from here a funeral was held for nine Australian Defence Force members. In 2007, the inquiry into that accident concluded that there were a number of issues to do with the culture within Navy—maintenance was being rushed, there was problematic reporting and, particularly, reporting was overly optimistic. In 2011, not more than 500 metres away from where that report from the board of inquiry was delivered, the Navy's amphibious fleet collapsed entirely. It was unable to leave the dock to respond to tasking for a cyclone in Queensland. The subsequent inquiry into that, undertaken by Rizzo, concluded that one of the problems was that Navy had a 'can do, make do' culture and that reporting into the readiness of the fleet was overly optimistic. These are two incidents, six years apart, where the words used in both of those reports, 'can do, make do', were almost exactly the same by the then Chief of Navy and by Paul Rizzo when he gave his results to the public and to the Navy. In both cases there were serious consequences for the Defence Force, and serious problems were masked by overly optimistic reporting and a failure to address deeper issues.

Today we are talking about the Defence annual report, a report, I believe—and I have argued in my submission—relies extensively on overly optimistic reporting, and which may in fact be masking some deep and more complex issues within the Australian Defence Force. The deeper question I have for your committee is, I think, a simple one, and that is: how good is the Australian Defence Force and how good is the Australian Defence Organisation? It is a question I have been asking for some time, and I am not convinced I know the answer yet. You may know the answer, our defence chiefs may know the answer, but this report will not tell you how good the Australian Defence Force is. For an organisation that is incredibly important, that consumes a large proportion of government expenditure and which employs a large proportion of public servants, to use a three-tick methodology of performance measurement is, I think, crude, and the adoption of that reporting methodology, I think you will agree, is overly optimistic.

I think it is difficult for the defence minister and defence secretary to answer the question of how good the Australian Defence Force is. I have outlined in this submission the amount of churn that happens within the defence portfolio—the short average tenure for defence secretaries compared with secretaries in other departments, the short average tenure of defence ministers over the last 14 years. This is a portfolio that is incredibly complex—at least as complex as other portfolios like health and education—and it is more problematic to get your head around. Not many parliamentarians have experience working in defence or in the military. Unlike health or education, they are unlikely to come into contact with the Defence Force and the defence department in their daily lives until the point where they might be appointed defence minister or to this committee, indeed. The difficulty for leadership within the parliament, and also for yourselves, in getting to grips with the fundamental question of how good the Defence Force is, is also a problem.

In this submission I have also pointed to the difficulty for the public in getting to grips with how good the Defence Force is. The issue I have is that this report makes it very difficult for Defence to be accountable to parliament. There is not a lot of information with which you can measure preparedness for defence, readiness issues or some of the deeper more structural and institutional problems that might be happening within the Australian Defence Organisation.

There are a couple of warning signs when you look at the question of how good the Australian Defence Force is and how good the Australian Defence Organisation is. There is widespread agreement amongst experts, both inside and outside, that there is a widening gap between defence funding and our aspirations for military

capability. There is concern within the military about the effect of ongoing restrictions on their budget and on their modernisation initiatives. There is a degree of uncertainty and revaluation about the trajectory of the modernisation of the ADF as well.

I have worked with plenty of excellent soldiers and officers, sailors, and airmen and airwomen. I would like to know for sure and be able to prove that we have a good Australian Defence Force and Australian defence organisation. I have advanced some suggestions in this submission, which I believe might help the parliament to answer that question as well.

Dr JENSEN: First of all, you have put some suggestions down. Could you just run through them for the committee, because I think it is very valuable to have not just identification of problems but actual suggestions for solutions.

Mr Brown: I have made a number of suggestions. The first one is that the committee and the parliament work with the Australian defence organisation to determine a more effective method of measuring and reporting Defence performance. There are a number of examples amongst our allies of ways that their annual reporting to parliament is more transparent in terms of readiness targets for forces, capability options and whether the defence organisation is meeting those options.

In New Zealand, for example, their annual reporting provides a clear indication of whether Defence is meeting its own readiness targets, without divulging any operational security information. There could be some good work to be done there. I do not know whether it would be a public method of reporting—it might be an in camera method of reporting—but a more institutionalised and granular way of letting you know whether or not Defence is hitting its targets.

The second suggestion I have made is that this committee encourage the defence organisation to more routinely publish statistical information for a number of reasons. Firstly, so that my job as a researcher is easier. Secondly, so that both the public and parliament can do their own assessment of where defence is at. Thirdly, so that defence personnel themselves can access this information. I believe that it is just as hard within the organisation to get your hands on statistical information. For example, it took me four months to work out how many Army officers have a tertiary degree. That is not very controversial information in itself. It does not give us a huge degree of insight into how good the Army is, but it is an indicator of how professional our Army Officer Corps is. Four months later I have been given that data by Defence. It turns out that, from their records, 20 per cent of Army officers have a degree—a surprisingly low number. It is a number, I believe, cannot be correct given the number that go through ADFA, and Command and Staff College at ANU. An initiative to convince Defence to publish more of this type of statistical information would be entirely useful. There is a good model for this. The United Kingdom Ministry of Defence has an analytical statistical agency, which basically has economists, statisticians and researchers who work to put together this kind of information and publish it for public, parliament and defence usage.

The third recommendation I have made is that, in your inquiry into this report, you make a recommendation that Defence be extremely wary of overly optimistically reporting, for the reasons I have outlined. In looking at other defence forces around the world and other defence organisations, it is quite clear that some of them use their reporting as an opportunity to flag critical issues and critical shortages. The United Kingdom, for example, in their annual reporting take the opportunity to list where they are critically short of personnel. There are arguments for why you would and would not do that. But when I look through this report I see language that is not entirely useful and I think it is a cultural and institutional trait within Defence. I would hope that you would recommend them to take note of that and address it.

The fourth recommendation I have made is to strengthen the defence research capacity in the Parliamentary Library and also the analytical capacity in the Australian National Audit Office. Your Parliamentary Library do excellent work on, in particular, defence but they have a very small number of researchers allocated to this task. There are three out of 120 focusing on defence issues. That compares with 12 in an area like social policy. Given how complex defence is and given the fact that so few parliamentarians come to addressing this portfolio with experience in the organisation, I think there is a need for the Parliamentary Library to allocate a disproportionate amount of resources to assessing and analysing defence.

The ANAO also do excellent work. I think they also need to have a disproportionate focus on defence as well, particularly given the complexity of some of the procurements issues that Defence needs to deal with.

The next recommendation I have made is that your inquiry recommend to Defence that they review the effectiveness of their operations and strategy in East Timor, the Solomon Islands, Iraq and Afghanistan. We are coming to the end of a decade of high tempo for the Defence Force. I think it is particularly important that we

review how successful that has been on a number of levels: the military strategy, the operational effectiveness and the tactical lessons that we have learned as well. Defence does not have a great record of doing this. The Australian National Audit Office concluded that Defence has been very poor, over the last 20 years particularly, at conducting its own reviews of lessons learned and implementing the lessons learned from those reviews as well. I would ask that you direct in your report that Defence to take particular attention to this.

The last recommendation I have made might seem a little bit unusual. It is about developing a more mature parliamentary program for engagement with Defence. I know many of you have been through the ADF Parliamentary Program. It is an excellent program. Defence initiated it in 2001 to address a growing gap between parliamentarians and the military. That program does an excellent job of giving you empathy into what our service people do. I am not sure that it gives you a great degree of insight into military strategic issues or some of the more operational-level issues. I know you conduct your own visits to establishments and you have your own briefings. A more mature program might extend that opportunity to people beyond the Defence committees as well. Rather than doing repeated tactical-level visits and repeated tactical-level placements, they might have the opportunity to grapple with some of those issues as well.

Dr JENSEN: Thank you very much. I agree with your assessment that in effect there is an imbalance, because you have a whole lot of expertise within Defence and even with this subcommittee you have a relative lack of expertise. In the United States armed services committees both in the senate and congress, they have quite a large direct support from researchers and advisers who have technical expertise, basically to balance up the imbalance, if you will, between the expertise on one side of the desk and the relative lack of expertise on the other. Is that something that you would advocate for our parliament? Do you think that would be something that would be valuable here?

Mr Brown: I think that there are a number of avenues in the US system that provide a remarkable level of detail and analysis. I doubt we will get to the point where we can do that, and I think Defence would be particularly nervous about having that level of scrutiny. It might not be appropriate for our system. But you make a good point. I would imagine that even finding advisers who have had experience in the military is quite a difficult task here—not to cast aspersions on your uniformed advisers here attached to this committee. But a way to channel more of that expertise towards your deliberations would be useful.

Ms BRODTMANN: Thank you for the submission. It is a really interesting read. What I found particularly interesting was the comparisons between those who have served in the military in other countries and what happens here. I do not know whether I agree with you on the issue that you make, or the point that you make, but it was an interesting comparison.

I would like to pursue the issue of reporting. An area I have been particularly interested in is in sustainment. I am sure you are aware that—I think it is next financial year—the proportion of spend on the acquisition side becomes less than the spend on sustainment. I think it is the first time ever that we have this shift into the majority of money—not the majority: I think it is an extra bill or so—going into sustainment. Since I have been in the parliament, I have been interested to try to get a greater understanding of what is actually happening in the sustainment space.

You made mention of it before in terms of preparedness and readiness. I know that is operational readiness, but I am thinking about the capability here. I would like to see something like an MPR for sustainment. I do not know whether that is possible, but I would be interested in your thoughts about what actually happens overseas. I understand that there is a greater granularity of reporting on sustainment overseas. I would just be interested in your views on how we could get a greater understanding of that, bearing in mind that there are classified issues and sensitivities that we have to deal with. But I understand that other countries do overcome those sensitivities and that they do get a greater transparency on the sustainment performance.

Mr Brown: You mentioned MPR, what does that mean?

Ms BRODTMANN: The major projects report. Something along those lines in the sustainment space.

Mr Brown: Defence sustainment and procurement is not my area of expertise. There are other people who could more capably answer that question for you. My understanding is that there are issues of incrementalism within the services in terms of the way sustainment is handled. The issues, particularly within Navy, happened because it was very difficult for any one person in any of the logistics areas to get a sense of the entire problem. I think some of the problems that we have in terms of sustainment are quite basic ones to do with sharing of information. Until recently Defence did not have an effective document management systems. With people posting in and out of jobs continuously, it was very hard to learn the history of an issue. Some of the fixes in that

area might start with some very basic issues like addressing how you retain corporate memory for sustainment issues.

Ms BRODTMANN: Who is the person who could speak on that?

Mr Brown: ASPI has some people who are very focused on sustainment.

Ms BRODTMANN: From ASPI. Thank you.

Senator MARK BISHOP: Thank you, Mr Brown, for taking the trouble to make the submission and your comments this morning. I do happen to agree with you about a more mature role for the Defence program, particularly at a strategic or policy level. I also found value in your comments about the additional or supplemental people in both the Parliamentary Library and the ANAO. The ANAO has developed quite considerable expertise in procurement matters, costings, risk analysis and the like in the last five to seven years. When projects go to the NSC for approval, submissions are received from Defence—DMO prior to that—and they are signed off by Treasury and finance—particularly on the costings and the risk analysis—before it all goes to the NSC for sign-off. That is the process. When the costings come through, they have been examined by officers in Finance and signed off, and presumably are regarded by members of the NSC, subject to questioning, as authoritative.

In the context of supplementary expertise in both the ANAO and the Parliamentary Library, is there any call in your mind for a significant stand-alone unit in the department of finance that can develop and retain expertise over time in the financial economics of major capability acquisitions? It is a rare beast that requires a lot of knowledge and a lot of understanding at both a conceptual and a technical level, and my observation over the years is that people come in and out of finance, and this is just another part of the workload. Is there any merit in that suggestion?

Mr Brown: Being from a private organisation, I will probably argue as well, to please my boss, that you could do that in the private sector as well. I cannot speak to where that would best be located, whether it would be in the department of finance or in another area, but an organisation purely looking at the data on how those procurements perform, pulling together information from a range of different sources and maintaining some sort of continuity in the personnel doing that would be entirely valuable.

Senator MARK BISHOP: The major projects reviews that Ms Brodtmann referred to have been going on for at least about seven or eight years. They originally came out of a recommendation of the Joint Committee on Public Accounts and Audit, they were accepted by the Howard government, then $1 million of supplemental funding was provided. It has continued under the current government and now quite lengthy and detailed documentation is provided. Ms Brodtmann raised the area of sustainment space. Do you have any views on the utility of the reports on the major projects—major projects are released every six months—bearing in mind your opening comments on the shortcomings in those two Navy issues which resulted in significant loss of life and ongoing cultural issues in Navy? Do you have any comment as to the utility of those project reviews?

Mr Brown: I do not. I have not looked at them specifically as part of making this submission. My focus tends to be away from procurement, although I know that is obviously of vital importance to what you do.

Senator MARK BISHOP: Thank you.

Senator FAWCETT: You comment on trying to raise or narrow the gap between the military and its experts and the parliament, which is often devoid of expertise. Do you have any exposure to the Quadrennial Defense Review approach the Americans take, where essentially on a bipartisan basis civilians with expertise are appointed by both sides of the hill to advise the Congress and the Senate on performance and planning issues in defence? Do you have any comment as to the applicability of that to Australia?

Mr Brown: I think the US has some creative ways of looking at these issues and tapping into wider expertise in the community that could be adapted here not only through the Quadrennial Defense Review process but also through the use of organisations like the Rand Corporation. There are quite extensive histories of using organisation like that to tap into recommendations to develop policy options. That is starting here in an informal sense. My organisation and others are the think tanks, but a more institutionalised way of marrying that expertise outside the parliament with your deliberations would be useful.

SUBCOMMITTEE CHAIR: I have a question about your sixth recommendation. You did not elaborate that much on the development of the parliamentary defence caucus, a crossbench group. How would you see that operating compared to this committee that currently meets what I would consider a consistent mechanism to what you are proposing?

Mr Brown: This is a very formal deliberative process. For some of the issues you might want to develop a background amongst parliamentarians. For some of the questions you might want to ask, there might be a benefit in doing that in a more informal environment. For example, some of the questions about decisions that the parliament might make about the use of military force or responses to crises in our region, issues of military strategy, might be better considered in an informal closed-door environment. For example, I would imagine not many parliamentarians would have had the time to think about how they might want to respond in the event there were a call to provide a military contribution to a Taiwan contingency. You could explore that in this forum, but it might be better to explore it in a more informal bipartisan way through a friends of military strategy group or a defence caucus, for want of a better term.

SUBCOMMITTEE CHAIR: As there are no other questions, thank you for your appearance before this committee. You may be asked to provide additional matters, and if so please see the secretariat. You will be sent a copy of your transcript. If you wish to make any corrections of grammar or fact, please do so and return the transcript to the secretariat.

Mr Brown: Thank you for your time.

JONES, Vice Admiral Peter, Chief, Capability Development Group, Department of Defence

OSLEY, Air Vice Marshal Kym, Program Manager, New Air Combat Capability, Defence Materiel Organisation, Department of Defence

[11:44]

SUBCOMMITTEE CHAIR: Welcome. Although the subcommittee does not require you to give evidence on oath, I should advise you that this hearing is a legal proceeding of the parliament and therefore has the same standing as proceedings of the respective houses. The giving of false or misleading evidence is a serious matter and may be regarded as contempt of parliament. The evidence given today will be recorded in *Hansard* and will attract parliamentary privilege. I invite you to make opening statements.

Vice Adm. Jones: Thank you for the opportunity to provide some opening remarks. It is now less than two years before the first two Australian F-35A aircraft are delivered, and seven years before the Initial Operating Capability, or IOC, of the F-35A in the Royal Australian Air Force. I would like to update the subcommittee on the New Air Combat Capability and some of the key issues we will deal with on the way to IOC.

The recently released 2013 Defence white paper confirms the government's commitment to the JSF and reflects the improved confidence the government and Defence has in the management of the JSF Program. The announcement at the release of the Defence white paper to acquire the 12 new-build Growler aircraft does not alter the commitment or schedule for the planned JSF acquisition. The Growler and the F-35A have different, complementing functions, with the Growler being optimised for providing broad electronic warfare support across the joint battle space. In operational service, the Growlers, with their theatre-level electronic warfare capabilities, will complement the self-protection electronic warfare capabilities of the F-35A.

The F-18F Super Hornet fleet will still provide the Bridging Air Combat Capability as the RAAF transitions to the F-35A. The decision not to modify Super Hornets to the Growler configuration but acquire new Growlers will maintain aircraft availability and so further mitigate risks in the air combat transition.

The F-35A, as a 5th generation strike fighter, will provide Australia the capability to succeed in the air across the spectrum of conflict. It will bring to the fight a degree of networking that is a force multiplier for airborne forces, as well as for land and maritime forces. The F-35A will be able to operate and win in very high threat environments where most other fighters will struggle. Very importantly, it is at the start of its operational life and will be able to evolve and improve over decades as the threat evolves.

Following the re-baselining of the program by the US Joint Program Office, in 2010-11, the program has stabilised and the manufacturer is meeting its key milestones. Technical problems with systems such as the helmet mounted display system are being addressed. We now have a greater level of confidence that the program will deliver the required capability by 2020. We have reached this view based on three independent reviews conducted by Defence. These consist of two software focussed reviews using the schedule compliance risk assessment methodology, or SCRAM, and also a further DMO-led review that was independent of the Project Team, in March/April 2013. These reviews have confirmed the assessment made by the new Program Executive Officer, Lieutenant General Bogdan, to the Defence subcommittee during his briefing at Avalon, and in his April 2013 testimony to the US congress, that the program is likely to deliver the threshold capability needed for an Australian IOC in 2020, based on block 3i of the aircraft software. Defence assesses a medium risk for the delivery of the software capabilities needed to meet the Australian IOC requirements in 2020.

Of course, with only 35 per cent of flight testing of the F-35A complete, and ground fatigue testing of the F-35A just entering the second life of testing, there is still the potential for issues to emerge. The Block 2B/3i configuration of the F-35A aircraft is assessed to be at least as capable as the Classic Hornet in the priority IOC roles and will meet the threshold requirements for IOC. At this time, all planned capability is expected to be fielded in the Block 2B/31 configuration, but there are several 'drops' of Block 2B software to be delivered in the next few months. Some capability features of the block 3F software may potentially be deferred because of the limited budget and schedule available to the F-35A System Development and Demonstration program. The recent DMO-led review, conducted independently of the project office, found that the F-35A, in a block 3F configuration, together with its weapons and support systems, is likely to be ready to meet an Australian IOC schedule.

Maritime strike capability is a high-capability priority for Australia, and also is a very high US Department of Defense priority for block 4A, planned for release to service in the 2020-21 timeframe. Defence assess a medium risk that the implementation of the Joint Stand-Off Weapon, or JSOW C-1 maritime strike weapon, could be delayed to beyond the planned F-35A final operating capability date of 2023. This risk will be reassessed once the

final block 4A content and priorities are confirmed in around September 2013 and advised as a part of the AIR 6000 phase 2A/2B second-pass consideration to government.

A high risk remains in the area of generating a suitable mission data load for the F-35A at IOC. The mission data load contains threat parameters, weapons information and other mission data. Ways of mitigating this risk are being investigated, including the sourcing of an initial mission data load from the United States.

From a schedule perspective, software remains a key risk; however, the risk appears to be reducing. The block 2B release is expected to be delivered to the fleet in mid-2015, and block 3I in 2016, representing about a four-year schedule buffer to the planned Australian IOC of 2020.

The independent DMO SCRAM review assessed about 11 months of schedule risk in the block 3F software. This assessment appears valid with about three months slip now forecast by the US JSF Program Office. The block 3F fleet release is planned for the third quarter of 2017, but could be as late as mid-2018 if the risk is realised. Defence will have better idea of fleet release date for block 3F after the block 3 critical design review in mid-2013.

The first two Australian F-35A aircraft are on track for delivery in the United States in late 2014 and will be used for training the first Australian pilots at Luke Air Force Base from 2015. Production ramp up from 35 to 100-plus F-35A aircraft and engines per annum presents a challenge, but the F-35A Joint Program Office and the recent DMO-led review assess that it is achievable. Lockheed Martin and Pratt and Whitney appear to have the resources and expertise to deliver the system development and demonstration program and hence achieve an Australian IOC of 2020.

From a cost perspective, the approved AIR 6000 phase 2A/B stage 1—that is, the 'first 14 aircraft'—remains within budget. The unapproved AIR 6000 2A and 2B stage 2—that is, the 'next 58 aircraft'—remains within its Defence Capability Plan provision.

There is now strong alignment between the aircraft acquisition cost estimates from the independent US Cost Assessment and Program Evaluation Office, the US F-35A Joint Program Office, and the Australian New Air Combat Capability Project Office. However, the aircraft costs are sensitive to US and partner nation purchase profiles. The actual costs for each successive low-rate initial production lot continue to be below the US congressional estimates. Our first two aircraft are expected to be around, or less than, the $130 million estimate that Defence has had since before 2011. Overall, in 2012 dollars and exchange rate at A$1.03 to US dollars, 72 F35As are expected to cost an average of A$83.0 million—unit recurring flyaway cost—if ordered in the 2018-19 to 2023-24 time frame.

The latest official US congressional F-35A cost estimates, sourced from the publicly available Selected Acquisition Report of 2011, are consistent with the Australian estimates and indicate the cost of the F-35A—unit recurring flyaway cost—reducing from a price of about $130 million in US then dollars for aircraft delivered in 2014 reducing over time down to about $82 million in US then dollars for aircraft delivered in the 2020 time frame.

The sustainment costs are high but reducing, and we should see further refinement of these costs now that the F-35A has been fielded at several units in the US. This area is a particular focus of the US JSF Program Office at present, who have been implementing initiatives such as improving the supportability of high-value and high-usage aircraft components; opening up greater competition for sustainment work; and further developing programs to reduce the cost of ownership of F-35A support equipment.

From an industry perspective, Australian companies have won contracts worth about $300m to date. About 30 Australian companies are directly involved in doing business with the F-35A primes, with many more Australian companies as subcontractors. About $1.5 billion in work for Australian companies is anticipated during the acquisition phase. There will be additional opportunities for Australian industry to gain sustainment-related work as the F-35A enters service, and also about $1.2 billion in F-35A-related facilities to be built in Australia.

Since the last time Defence briefed the subcommittee on the JSF project, Australian industry has achieved several important milestones. Quickstep Technologies has received qualification to manufacture all types of composite panels and doors for the F-35A centre fuselage, while Marand Precision is making progress towards commencing vertical tail production in July this year.

In conclusion, the New Air Combat Capability Program is progressing within the cost and schedule buffer available and Defence plans to bring forward a submission in 2014 for government consideration of the second pass approval for the next 58 F-35A aircraft.

SUBCOMMITTEE CHAIR: Thanks so much for that update on the JSF. I found it quite interesting, since we last were briefed at Avalon. I was interested in the cost. There appears to be a significant reduction in terms of

what was projected. Did that have any bearing in terms of Japan coming on board with a JSF and anything to do with the decision by the US government to start winding back on defence? Can you elaborate on whether that had any bearing on the prices that you have indicated at today's hearing?

Air Vice Marshal Olsey: The costs that were just covered that indicate the way the price is trending down are from, as you heard, the Selected Acquisition Report 2011. The inputs to that include things such as the latest expected orders that have come in from the partner nations and any adjustments that are made—including any adjustments made because of the Japanese announcement. So the SAR 11 figures did include the adjustments for the FMS customers that were known at the time that the SAR estimate came out.

The next SAR estimate that comes out in a short time, in the next few months, will take into account any developments in the 12 months since that last estimate came out. So, if any further FMS customers or any adjustments to partner numbers occur, they will be reflected in the latest annual estimate. Those annual estimates are valid as at this point in time.

Mr King: I think that your question went to whether the pricing influence the Japanese decision. Is that correct?

SUBCOMMITTEE CHAIR: No, I was interested in whether the Japanese inclusion in the program had a bearing on it overall.

Air Vice Marshal Osley: The short answer is any FMS customer including the Japanese does reduce the price for the other partners. That is a downward trend on the cost. Of course there are upward trends on the cost—that is, should the expected ramp down in labour time on certain parts not be achieved then that would be an upward trend on the dollar figures.

Senator MARK BISHOP: Are we doing the annual report or the JSF?

SUBCOMMITTEE CHAIR: It is basically the JSF.

Senator MARK BISHOP: Right. Have we concluded the annual report?

SUBCOMMITTEE CHAIR: Yes we have.

Senator MARK BISHOP: I want to ask a question about the agreement with the Swedes on the technology re the submarines. Is that appropriate here or not?

Mr King: I did not come prepared for it but I can talk to it to some extent. I am happy to talk about it.

Senator MARK BISHOP: The minister put out a statement today. When we were overseas last year the Germans made it quite clear—it is in the notes in our report—that they had taken over the Swedish company. They own the technology that is in dispute. For us to have access to it sometime in the future was dependent upon their agreement and finally the agreement of the government of Germany. I see in the minister's press release today he has outlined an agreement with the Swedish company and presumably the Swedish government. How does that bear relationship to the assertion of title ownership by the Germans?

Mr King: It is very complex to deal with here.

Senator MARK BISHOP: Would it be better done at another time?

Mr King: It could well be because it is longer than a simple answer. There are two competing positions from both industry and from the Swedish and German governments, although the German government plays no real role in the Swedish IP. I think it would be to better dealt with at another time.

Senator MARK BISHOP: Would it be better if I raised that at estimates in due course?

Mr King: Yes, we could do that. Basically, we have done the agreement with the Swedish government and we are now working it through with the Swedish based arm of the TKMS company, which is called Kockums.

Senator MARK BISHOP: So we have to have further negotiations with the Germans?

Mr King: Yes, that is correct.

Senator MARK BISHOP: To sign off the total package?

Mr King: Yes.

Senator MARK BISHOP: I will do it at estimates.

Senator FAWCETT: You mentioned in your opening comments that the helmet mounted display was being 'addressed'. Given the history of various 'addressing' that has occurred without resolution, could you give us some more detail on why you now have confidence that that 'addressing' is going to reach an outcome.

Air Vice Marshal Osley: When I was over in the US back in March I went to Edwards Air Force Base and spoke with the officer running the test program over there and to his deputy. One of the issues we discussed was

the helmet mounted display. They have been conducting a series of flight tests purely devoted to exploring the issues with the helmet mount display system and also some of the fixes that they have been putting into the helmet mounted display to improve its performance. That testing has just been completed and they are now finalising the analysis of it. I will give you an initial readout on what the analysis is indicating there.

As you are well aware there is a dual path on the helmet. We currently have the VSI Gen II helmet. The VSI Gen III helmet, which will have an improved low-light night vision capability will be coming in about 2015 and that will then take over. We will know longer have the VSI Gen II. We will go to an all VSI Gen III helmet. You are well aware that the other path is a BAE helmet that has a night vision goggle arrangement attached to it as an interim helmet and as an alternate helmet to the VSI helmet. At the moment both paths are being progressed but of course the flight testing was all about the VSI Gen II helmet.

I think you are across the issues but I will briefly cover them. Alignment is a key one. You hop into the aircraft and on occasion the helmet display may not be aligned with the earth. That requires you to get out of the aircraft and have it realigned on the ground. They are working on a proposal to have that, whereby you in fact fine-tune that prior to getting in the aeroplane; the pilot can do it as part of his normal checkout procedures. At the moment you have to return the helmut and basically go back and have it adjusted in the workshop. They are making it so that it is pilot-adjustable.

The next one is green glow, and that is a factor of the design of the helmut, using LCDs. It implies that there is a whole lot of extraneous light that is coming in at night around the display. Even though it is noted by a few of the test pilots it is not considered an operationally significant issue for them and they can overcome that one.

The third one is jitter. There were in excess of 35 flight tests; I believe there were 38 by the time I had been to Edwards, and there were more being planned. The initial results were that they were seeing positive improvements from the modifications that had been made. So, they had adjustments to the software to counteract the jitter, and in the pre-jitter software the pilot considered that it was acceptable but that it would require some workarounds and some compensation operationally. The post-modification ones for the anti-jitter in the software were showing significant improvement. That is all I could get out of them at the time, from the commander there.

The fourth issue is DAS latency—that is, the display has a lag in it. That lag has proven in the test flights to not be significant, so it is no major concern. It is expected to meet USAF operational requirements. They have tested it and measured it and the USAF is now considering that data, but it is looking good.

The final one is the night vision camera. The Generation II helmut is not compliant in its night vision capability, and that is an issue not so much for the USAF—it can achieve their operational requirements—but for the US Marine Corps, in particular for fine motor skills of landing on the deck of an LHD and the fine motor skills involved in air refuelling off KC-130s at night doing the probe refuelling. It is a problem both with the amount of resolution you have and with the location of the camera, as you are aware. That will be fixed in the Generation III helmut by using a better system, and they are working on that. And in the interim of course the US Marine Corps are assessing whether it is operationally acceptable to go to IOC in 2015 with it, noting that they also have the alternate helmut as the backup at this time.

So, that is a readout of where we are up to at this point in time. It is an ongoing issue, and we do expect more clarity on it later in the year. But the indication from a Royal Australian Air Force point of view is that the only issue that is basically a red at the moment is the night vision camera, and from our perspective we can achieve our IOC missions with the system as it is. It is not necessarily a red for us, from an operational perspective. I will finish by saying that the helmut mounted display will not meet the specification that was planned. That is a given; it cannot meet the specification. It is a very tight specification and the Generation II will not do that. But it is looking like being operationally acceptable.

Senator FAWCETT: Perhaps you could talk to me about the weapons road map for the Joint Strike Fighter and your current thinking around short-range and medium-range air-to-air, and also your plans for the collaboration with Norway in the Joint Strike Missile.

Air Vice Marshal Osley: The road map is that we will go to initial operating capability with a minimum of the Block 3I capabilities, and those weapons, from an air-to-air point of view, are limited to the AMRAAM.

Senator FAWCETT: So, no short-range?

Air Vice Marshal Osley: That is with Block 3F, and we are expecting that that will be implemented either for IOC or soon after IOC, but the minimum requirement for IOC is the AMRAAM as part of the Block 3I. The AIM-9X software will be in the load but it will not be certified and tested until Block 3F.

Just to make it clear: at this point in time we are of course progressing on the assumption that we are aiming to get block 3F in there, with block 3I as our fallback. The weapons road map for block 3F is to have the air-to-air mode—obviously, the gun, the AIM-9X and the advanced AMRAAMs.

Then, after that, we are looking at other projects. We have projects in the DCP to look at the next range of air-to-air weapons to take over in the longer term.

Senator FAWCETT: We will come back to AIM-9X in a moment, but with the Norwegian proposal, can you talk through the scope of the collaboration and Australia's involvement you are envisaging in that?

Air Vice Marshal Osley: Australia and Norway have had long discussions about the Joint Strike Missile over many years. We have obviously been very supportive of Norway not in a financial sense but certainly in supporting their aim at getting a very capable maritime strike missile onto the F35.

The Joint Strike Missile, as you and others are perhaps aware, is internally mounted so it retains the stealth capability of the aeroplane. It is a high-capability missile that has very useful modes in the maritime strike regime. We have been working with the Norwegians in sharing information, sharing our requirements. Certainly, the missile shows a lot of promise. The Norwegian government itself has made the decision that it will not rely on engagement with other partners and funding support from other partners to get it into service. It has taken the decision to fully fund the implementation of the Joint Strike Missile into the F35 as part of block 4. That has been announced in the press and Norway has also committed to its plans for its F35 fleet and that was announced last year as well.

So with respect to the Joint Strike Missile at this point in time, in block 4, so in the early 2020s, the planning is underway to include the Joint Strike Missile in that block of software and to have that capability on the F35A should any other nations decide to (*indistinct*) it as the maritime strike weapon.

From our own perspective, as the admiral pointed out there, our plans revolve around the Joint Stand-Off Weapon C1. We are planning to have that as our maritime strike weapon initially. The US navy and the US Air Force are very supportive of having that capability on the F35 and, of course, we are getting that same capability on the F18F.

We are intending to go to our FOC and have a maritime strike capability based on the JSOW C1.We have a joint project 3023 in the longer term that will consider options for maritime strike capability on the F35 and other platforms. I believe that that would consider the Joint Strike Missile at that time as a very serious contender in that competition.

Senator FAWCETT: So you are saying USAF and the US navy are supportive of our current intention. Does that imply that they are going to fund and conduct the integration and stores clearance work for that?

Air Vice Marshal Osley: What it means is that they are very keen to have the JSOW C1 as a weapons capability on the F35 Charlie and the F35 Alpha for the United States Air Force and the USN. Of course, we are keen to see that as well. They regard it as a high priority to have a maritime strike weapon on the F35 in the early 2020s. So, as a result, we are anticipating that JSOW C1 will be a part of the block 4 upgrade and the block 4 upgrade, following on from the block 3 upgrade that is block 3F which we are expecting at IOC or soon after, is planned to be completed in 2020, with a release to fleet in 2021. That is the current time frame for it. So that allows a buffer to 2023 for our FOC and, because USAF and USN regard it as a high priority, they obviously have considerable influence in the F35 program as to the weapons getting on the aircraft.

Senator FAWCETT: My question was that they would end up doing the work to—

Air Vice Marshal Osley: It is part of the common suit. For instance, the joint strike missile will be funded by Norway. The JSOW C1 as part of the common suit, so it is available to all the partners and all the partners make a contribution. Of course, our contributions are based on the ratio of aircraft. Our aircraft numbers are two or three per cent of the—

Senator FAWCETT: I come back to the short-range weapon. You would obviously be aware of the Classic Hornet that the AIM-9 was competed against, the ASRAAM. We ended up choosing the ASRAAM. Has there been any push from the UK to have ASRAAM or its derivatives offered as one of the common weapons? Have we given any consideration to developing the relationship and work that we have done with the UK over that weapon for the Joint Strike Fighter?

Air Vice Marshal Osley: I am not that familiar with the history. I do know that we have discussed the potential to have ASRAAM in the past. The decision was made before I turned up that we would remain common with the United States Air Force, with the AIM-9X at this point in time. I have not seen ASRAAM as a common

weapon in any of the blocks. If it is being progressed, it is being progressed as a unique one with the UK at this point in time.

Senator FAWCETT: In our agreements with the Americans and the Joint Strike Fighter project, what options do we have to do subcomponent and whole of system tests on the AIM-9X here in Australia in understanding its performance, particularly its sensor capabilities?

Air Vice Marshal Osley: I will have to take that question on notice. I could only answer in the broader sense. I know that with your test pilot background, that probably would not be adequate. It will take that on notice.

Senator FAWCETT: What I am more concerned about is that, at the moment, we are on track with both the Super Hornet and the Joint Strike Fighter to see the residual capability that we have within DSTO and Defence around sensor evaluation, sensor development, which has been proven to an extent, particularly with ASRAAM, where a number of the tools that were developed around IR missiles have now been adopted by the Americans, because they have been so successful and effective. Through our procurement decision, we are on a trajectory where we will lose all of that capability to test, develop and certify or integrate onto platforms weapon systems, when in the past we have demonstrated time and again that just taking what the Americans have offered may not be the best solution—hence our choice of ASRAAM—and we can actually add value to our international partners, in this case the UK for the sensor but also for the US in terms of testing concepts and systems. Even with things like the Classic Hornet we have seen that when they have delivered software loads for a new store—you would be familiar with the ACO flutter incident—the level of testing that we have traditionally conducted here has benefited them, because we have approached it in a different manner, to a different level of thoroughness, and yet we are on a trajectory to lose all of that, from what I am hearing of your procurement decisions. Can you talk to me about what plans you have to either retain DSTO and Defence's capability here or, indeed, leverage us into activities in the States such that we maintain a sovereign level of capability into the future?

Air Vice Marshal Osley: What I can point out is that we are engaging with the US military test community—obviously at Eglin and other places, including China Lake. We are progressing agreements with those people to have our people involved in the conduct of tests and to do it in a collaborative way where the Australian test organisation does not duplicate or is rendered irrelevant, where they work in conjunction. I am wondering whether the word 'pace' is familiar to you. We are working in agreements with the United States Air Force to collaborate on weapons testing, certifications and clearances, to have an Australian involvement in that. That is an ongoing thing. What it draws on is the fact that you are correct, that in the past we have value-added in those areas that you have pointed out. The reality is that the weapons testing and the testing of not just weapons but the aircraft and software against threats and so on, a lot of that is going to be US-based in the future, or if it does come to Australia it comes as a package. Therefore we do not want to necessarily duplicate everything out here in Australia; we want to work as one team to do that. So I think what we are moving from is very much an embedded and coordinated way of doing that weapons testing.

I can assure you that we have no intention of losing the edge that we have in DSTO and in Defence in dealing with those test issues and looking at weapons and making judgements about them and improvements. In the F35 program with regard to the radar and weapons, we have already been heavily involved in providing advice back from DSTO and other areas. AOSG of course has been involved in that as well. That is ongoing. As I said, I can research a better response to your answer with more specific examples of how we are doing it, what is involved in the program that we are looking at with the United States Air Force and so on. I think from a professional point of view you would be quite interested in that and I think you would be impressed.

Mr King: I would like to talk about the strategic engagement with the US for a minute. I think your proposition is that on this program certain things are being done in the US that we might otherwise have played a greater role of in Australia. At the highest level I co-chaired recently the ADAC, which is an acquisition and science group that meets under the auspices of AUSMIN. The Chief Defence Scientist and I had two days of discussions in Australia with our US opposite numbers. I think what is happening is quite the contrary to the point you are making about JSF. I have never seen such a high level of cooperation going on in the science and test and evaluation area that we have now got going. Admiral Jones attended the meetings with me. I think what is happening is that the US budget situation is forcing them to be much more embracing of what other countries can do. We saw very high levels of cooperation and future plans developing where I think we will play a greater role and an independently greater role. What I mean by that is doing whole pieces of work in the science and technology area, test and evaluation area and engineering areas and that the US will rely on that work to be inputted to their thinking. In fact, we spent half a day, I think, of the two days at DSTO going through a whole program of initiatives across all of the spectrum of Defence activities for where we will cooperate in a very much peer-to-peer relationship.

CHAIR: In the remaining minutes I will hand over to Dr Jensen.

Dr JENSEN: Air Vice Marshal Osley, in a previous hearing you responded to APA's criticism of the F35's aerodynamic performance and you said that it is inconsistent with years of detailed analysis undertaken by Defence, the JSF program office, Lockheed Martin and eight other partner nations. Given that the Director of Operational Test and Evaluation has indicated that the JSF program office, the JPO, has asked JROC to reduce the sustained turn and the acceleration performance essentially to exactly the numbers that APA was predicting years ago, what does that say about the detailed analysis by Defence, the JSF program office, Lockheed Martin and the eight partner nations?

Air Vice Marshal Osley: The points that the Director of Operational Test and Evaluation made there about the manoeuvrability, as you point out it was the sustained turn and the transonic acceleration. He pointed out that the targets that have been set for those parameters were not going to be met by the F35. The figure of I think it was 55 seconds for transonic acceleration, the F35 was going to take 63.9 seconds to do that. That is obviously at a certain altitude, I think it was 30,000 feet, and a range of mach 0.8 up to mach 1.2.

The point to make about those is that that acceleration by the F35 is in a combat configuration. If you look at the legacy aircraft and we talk about comparable performance, a legacy aeroplane would require weapons and, obviously, external fuel tanks to be in combat configuration.

Dr JENSEN: Air Vice Marshal, sorry to interrupt you, the basis of my question—

Air Vice Marshal Osley: Chair, can I finish that one off?

CHAIR: Let the Air Vice Marshal finish his answer, then proceed.

Air Vice Marshal Osley: If we compare those two, the legacy aeroplane with fuel tanks and weapons on it, if we take a fourth generation fighter, typically an F16 or an F18, in that configuration it would take substantially longer than 63.9 seconds. If you took a 4½ generation aircraft it actually could not accelerate to supersonic in any time over that 0.8 to 1.2 range with a combat configuration of external tanks and weapons. The point I made originally was that we need to talk apples and apples between legacy fighters and the F35 on manoeuvrability and performance capabilities.

Dr JENSEN: I guess my concern is that the numbers that we were talking about, the numbers that the JPO has asked the JROC to reduce them from, are actually threshold numbers. They are not the desired numbers; they were the bare minimum threshold specifications. They did not reach it, but more to the point you had this group APA which actually accurately predicted what those numbers were going to be, in stark contrast to what Defence, Lockheed Martin and all those other organisations were saying. My question is: what does that say about the fidelity of the modelling and the analysis that is undertaken by all those organisations when you can get a small organisation getting the numbers right but all of those that are involved with the JSF have got them so wrong?

Air Vice Marshal Osley: The way that the requirements for the F35 were set up is to talk about mission performance. Mission performance specification is the high level. There is no doubt at this time about the F35 meeting that mission performance—that is, the ability to counter certain threats that might be encountered at IOC and into the future. That level of the specification remains as valid; we are not questioning that; it is actually achieving that. Below that you have your key performance parameters. The aeroplane at this point in time is achieving those, as far as the F35A is concerned.

The figures that you are talking about, the specifications down the bottom with the sustained turn and the transonic acceleration, are derived values in order to meet the overall mission performance specification. We have always been focused on the ability of the aeroplane to meet the overall mission performance specification—the ability to do its air-to-air mission and to do its air-to-ground mission. If you take a particular parameter, such as the transonic acceleration, the difference between—in fact, the F35 can reach mach 1.16 in 55 seconds, so it is 0.04 mach short of that target, and in a slight descent it will exceed the limit. The point to make is that we do not necessarily get too focused on those individual derived parameters. We are focused on the overall ability of the platform, trading off everything—all the different capabilities—it has there: the situational awareness, the performance of the radar, the performance of the electronic warfare capability, the performance of stealth, the balance of range mission payload and the weapons.

The situational awareness is really the key—taking that and seeing how it performs against the overall mission specification. For instance, the trade-off that might have been made—the delay in the transonic acceleration—might have been due to giving it increased stealth as they were going through the design of the aeroplane. So you really need to see not the individual parameters but the overall specification. At the highest level, as I said, it is all about mission performance. That is what we do focus on.

Dr JENSEN: Okay. I will just make the point once again that a small group actually got those numbers right when Lockheed Martin and others got it wrong. Speaking about things like situational awareness and so on, the DOTE did an operational utility evaluation when, obviously, you now have now line pilots flying as opposed to people who you might say have a vested interest in saying good things about the JSF. In terms of what the line pilots say, their view of the JSF has not been particularly favourable, particularly with regard to those issues of situational awareness and the canopy bow. There were four pilots. Basically all of them were negatively disposed towards that. Three of the pilots predicted severe impact in combat or in training and one of them said 'aft visibility will get the pilot gunned every time'.

My concern is that you are getting all the idealised statements that come out of Lockheed Martin and the JSF project office and so on. But then you get line pilots who are highly critical of it. The report by the Director of Operational Tests and Evaluation also made the point that the simulator was not correct, particularly with engine performance: the spool up and spool down time. The director also made very negative comments in another report with regard to the aircraft's vulnerability. The point was made that the removal of all sorts of systems had resulted in the aircraft not meeting its requirement to have vulnerability better than legacy aircraft.

Air Marshal Brown: I will answer that question and try to deal with it in a couple of parts. I think you are kind of mixing situational awareness and rearward visibility.

Dr JENSEN: No, no.

Air Marshal Brown: Let me go through what 'situational awareness' is because it is actually the key advantage of fifth-generation fighters. It has been the key advantage in combat for quite a deal of time, even as far back as World War II. Air crew with the most situational awareness will normally win the day. But rarely since World War II has close-in combat been the actual determining factor because situational awareness is really that combination of things—of understanding what has happened, what is happening and the ability to say what will happen into the future. This is where fifth-generation aeroplanes have an unprecedented advantage over fourth-generation types. The rearward visibility—when you look at those pilots—it depends on which aeroplane you fly.

Dr JENSEN: F16s and 18s?

Air Marshal Brown: Yes. The A10. I think most of them were A10 drivers.

Dr JENSEN: No, three were F16. One was 18.

Air Marshal Brown: I think if you have a look around on an F16 sometimes that is not wonderful either. But getting back to the situational awareness, the ability to actually have that data fusion that the aeroplane has makes an incredible difference to how you perform in combat. I saw it first hand on a Red Flag mission in an F15D against a series of fifth-generation F22s. We were actually in the red air. In five engagements we never knew who had hit us and we never even saw the other aeroplane at any one particular time. That is a current fourth-generation aeroplane.

The data fusion in the stealth makes such a difference to your overall situational awareness it is quite incredible. After that particular mission I went back and had a look at the tapes on the F22, and the difference in the situational awareness in our two cockpits was just so fundamentally different. That is the key to fifth-generation. That is where I have trouble with the APA analysis. They tend to go down particular paths in the aeroplane, whether it is turn rate performance or acceleration. These are all important factors, but it is a combination of what you have actually got in the jet and the situational awareness that is resident in the cockpit of a fifth-generation aeroplane that makes the fundamental difference.

Dr JENSEN: With the F22s there are four KPIs that relate to aerodynamic performance: range, supercruise, manoeuvrability and transonic acceleration. With the JSF there is only one, and it relates to range. Clearly with the F22 they regard those performance parameters as critical in performing its air-to-air role, whereas the parameters around the JSF are clearly designed around the strike role. Indeed, even the carriage of just two AMRAAM missiles—I know there is talk of it being four and perhaps six—

Air Marshal Brown: It actually carries four at the moment.

Dr JENSEN: The point is that the requirement was only for two, which indicates in effect a self-defence capability rather than an air combat capability, whereas the F22 has got eight in its internal configuration.

Air Marshal Brown: Let me get back to my example again. In all those cases, neither turning performance nor speed were the factors that caused us to die in those five simulated engagements. In any practice engagement I have had in the last 20 years where I have turned with another aeroplane in a bigger picture environment—rather than the static one by ones, two by twos or four by fours—every time I have tried to do that I have ended up being shot by somebody else who actually is not in the fight. As soon as you enter a turning fight, your situational

awareness actually shrinks down because the only thing you can be operating with is the aeroplane you are turning with. The person who has the advantage is the person who can stand off, watch the engagement and just pick you off at the time. So you got to be really careful about how you use those KPIs.

Dr JENSEN: Sure, but in some of these engagements, where you have and can maintain a high energy state, even in terms of BVR you have the advantage. I mean, if you have got your JSF at a relatively low level, 40,000 feet, and your enemy up at about 55,000 feet, they can supercruise but you cannot, they can set the terms of the engagement. The problem is that, in terms of the stealth issue, we now no longer have a situation where we are the only game in town and they are not going to have it. You have got the J20, the J31 and the T50 PAK-FA—clearly stealth is becoming ubiquitous—so what about them?

Air Marshal Brown: They are going down that road, but let me tell you I do not think they have the level of stealth that is available in US fifth-generation aeroplanes—and it is by a significant factor that they are still not there. So I still think there are significant advantages with an F35. You have got to remember that PAK-FA, J20 and J31 are possibly where we were in excess of 10 to 12 years ago in their development time frames at the moment—so all those aeroplanes have still got a long way to go. I am not sure they will have the degree of sensor fusion that is available with the JSF. To me that is key: it is not only stealth; it is the combination of the EOS and the radar to be able to build a comprehensive picture. In that engagement I talked about at Nellis, in Red Flag, the ability to be in a cockpit with a God's-eye view of what is going on in the world was such an advantage over a fourth-generation fighter—and arguably one of the best fourth-generation fighters in existence, the F15. But even with a DRFM jamming pipe, we still had no chance in those particular engagements. And at no time did any of the performance characteristics that you are talking about have any relevance to those five engagements.

ACTING CHAIR: There has been a lot of discussion about the fact that some of the critics do not have access to classified data. General Bogdan made a statement relatively recently that early on in this program, for whatever reason, much of the technical data was stamped 'US only'. Now we have a backlog of technical data that is marked 'US only' but that is not 'US only'. It is not a pretty situation to be in because there are reams and reams of data through which we have to go back and look over, but it has to be done. My concern is that there was never any discussion by Defence about lack of access to certain classified data that you think you would have been aware of. What happened with it?

Air Vice Marshal Olsey: His reference there is to airworthiness. If you take it in context, you are talking about gathering enough information to do our airworthiness requirements. What occurred there is that the contract for the data to support airworthiness was not written in such a way—and it was a mistake and is being corrected--that it did not specify that the information had to be released to all the partners.

The reason it has come to light only recently that a lot of that data was for 'US eyes only' is we have only just had partner aircraft—the Dutch and the UK—going through the airworthiness process. In particular, the UK were the first to realise that they required a lot more information—or different information—than the US require for airworthiness. They needed to see that information and the supporting documents, and they found that some of those documents were 'US eyes only', and had been classified that way for no particular reason but because that was the normal way of doing the documents. That has been corrected.

The last time we got together as partners we agreed we would have a suite of documents that cover all the partner airworthiness requirements and that they would be cleared for everyone to see.

CHAIR: I thank you for your attendance here today. If you have been asked to provide any additional material, would you forward that onto the Secretariat? You will be sent a copy of the transcript, to which you may wish to make corrections of grammar or fact.

Resolved (on motion by Dr Jensen):

That this committee authorises publication of the transcript of the evidence given before it at public hearing this day.

Subcommittee adjourned 12:42.