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### **Defence Conference – The Annual General Meeting and 18<sup>th</sup> Annual Seminar and the Conference of Defence Associations**

**L.Gen. Lloyd Campbell:** Généraux, Amiraux, invités distingués, mesdames et messieurs. J'aimerais premièrement remercier Lionel pour tes mots de bienvenue très très gentils et j'aimerais aussi remercier les membres de l'Institut pour votre accueil si chaleureux ce matin.

I hope that in the next few minutes, I'm able to contribute somewhat to the discussion this morning. Certainly, I've already contributed to my own understanding of things by the previous speaker, which personally I very very much enjoyed.

I attended this morning the (inaudible) patrol breakfast that was organized by the Air Force Association of Canada and my thanks to those. Of course, that was preceded by the courage of the early morning get together as well. My thanks to the organizers and my thanks to the corporate sponsors of that event.

With regard to my own personal courage, regarding an appearance in front of the CDAI, on a fairly early morning – I guess my trepidation was somewhat lessened by Spooof (ph) Logan's comments yesterday that he didn't really see the need for either of the Chief of Defence of the Staff or the Service Chiefs to fall on their swords. Although parenthetically, Spooof, I note that you didn't really get a standing ovation for your position there.

(Laughter)

So, I suspect the school's still out on that particular issue.

In fact with regards to swords, General Jove (ph), the French Chief of Air Staff was here just recently and in fact, he presented me with a French Air Force Officer's sword as a gift. I don't know if there was a message intended with the presentation or not, but it certainly did serve to focus my mind on the historical genesis of this phrase to fall on one's sword, which fortunately we now only use in a rhetorical sense, I think.

In any event, Lionel, you'll be pleased that I don't intend to use the CDAI platform here to fall on my own personal sword, although it'd make quite a splash. I don't know if we can afford the cleaning bills. Rather, in the next 45 minutes or so – and in fact in the next 25 minutes of speaking – what I'd like to do is talk a little bit about things that are not much different than our first speaker this morning and then leave enough time at the end of that, hopefully, for you guys and gals to write the script of where you'd like to go in terms of

questions.

The theme of this years CDAI program, of course, is Combat Capability and I suspect over the last day and in the sidebar discussions that you've had, you've had an opportunity to talk about definitions of what that is and your own views of whether we have it or we don't have it, what are the contributors in terms of things like equipment and personnel and readiness, training doctrine and so on. For my part, to contribute to this debate, what I would like to do is highlight one factor, which I don't think anybody in the room will find particularly contentious, but which I also find is somewhat frequently overlooked in our discussions and the thrust and parry of the debate about whether or not we're more or less capable than we used to be in the past and that premiss quite simply is that what constitutes combat capability is not some kind of absolute thing, but in fact it varies depending on the operational environment or the strategic context in which one finds oneself, in which one is forced to operate by the circumstances that prevail. And it doubt there would be any argument either with that proposition.

Indeed, that's much of what Mr. Spiegel (ph) was talking about this morning when he spoke about transformational requirements in the United States Army and in the United States Forces in general.

If we consider our current and future operational requirement, again I doubt there's anybody in the room here who would suggest that the GO strategic situation in which we operate today is somewhat different from that which existed let's say 15 years ago when, for example, I was Commanding (inaudible). This was true before September 11<sup>th</sup> and it's true in spades, I think, in the days that follow. There have been a lot of studies that have been done that spell out what this future environment might look like and what kind of requirements it might call up.

And so I'm not accused of quoting ourselves and therefore being biased in the presentation here, rather than talking about Strategy 20/20 which I could talk about or some of our own Air Force, Navy or Army work that looks at the future, what I thought I would do in fact is quote a few pieces from the United Kingdom Strategic Defence Review which was done a little while ago. But I think you'll all understand that I could have picked one of a 100 or more different perspectives on what the future looks like – or is likely to look like. And indeed what today looks like in many cases, some of which even were written by members of the CDAI that would give much the same kind of impression. And I'm not going to spend a lot of time on this because I recognize also that to some extent I'm preaching to the choir since you're all quite familiar with the types of things that are in there.

First of all, the Strategic Defence Review noted that the risks and the challenges of the future are not simply the Cold War minus the threat of the Warsaw effect. The reality actually is much different than that. It focused on the fact that the United Kingdom has no direct military threat nor do they see one in fact for Western Europe, nor do they expect the reemergence of a direct military threat for the next two decades. And while one can debate what is a direct military threat, I suppose in the post-September 11<sup>th</sup> world, the same I think

can be said for North American.

The SDR also concluded, therefore, that the kinds of threats that we are going to have to deal with in the next 20 years or so would come from other factors –ethnic and religious conflict, population, environmental pressures, competition for scarce resources, and terrorism, drugs, and crime. And I don't think there are any surprises to any of us in those kinds of issues either.

With regard to the forces that the U.K. sees to meet those future security requirements, the SDR concluded that they would not need large standing forces on the continent on in the Atlantic simply to defend the United Kingdom and its allies. This is not to say that one does not need large forces with great capabilities, but simply to say that the defence – the military defence of the United Kingdom and defence of the Atlantic or the continent unlikely that large forces would be required there.

In essence – although I wouldn't want to try to quote words from SDR to this to agree, I think what they have concluded in the document and you've seen this elsewhere is that in any debate between quality and quantity in the current environment in which we live, where resources are constrained that quality needs to be defining factor. And I think again, going back to our previous speaker, you see those same kinds of words coming through there.

In terms of specifics, the SDR noted the following key requirements and I'll run through these very quickly. Obviously, improved intelligence, surveillance, target acquisition and reconnaissance system, the capabilities such as those Mr. Spiegel described having been employed recently in Afghanistan, improved command control and communications capabilities. Information is and will continue to be pervasive in the ability to get the right information at the right time to the right individual in the right format is going to be critical to operational and tactical success in the future.

For maritime forces, the SDR concluded the ability to operate in littoral areas will be much more important than with the case during the Cold War and this of course has important aspects not only for (inaudible) ships, but for the helicopters which we employ on board, for other tactical aviation resources, for maritime surveillance aircraft and so on.

With regard to the land forces, the SDR postulated the need for greater deployability and battlefield mobility. Again, the issues that I suspect General Jeffrey will talk about. But of course, as with the maritime environment, changes of this nature for land forces have a direct impact on those of us in the Air Force in our supporting roles in terms of all of the airlift, tactical aviation, fighter operation – to name but three.

And finally with regard to where operations in their own right, the SDR concluded that air superiority and precision engagement, again issues that we talked about – or the last speaker talked about will be absolutely crucial to all future operations, not only combat operations but also peace support type operations as well.

Now as I mentioned I can cite a lot of different studies other than the SDR, some produced

by members here, that would give us similar conclusions regarding the future. I won't.

Let me come back to my discussion then about the need for us to take the strategic environment into account when we're determining what combat capability we need to have and indeed even trying to measure what combat capability we have today. And let me be a bit provocative and suggest that much of the equipment and the structure and the operational doctrine that we deem to be highly combat capable and effective some years ago is less so today.

It's understandable that those of us out of uniform and in uniform look back with nostalgia and fondness at the organizations, which we served in or commanded during the Cold War. But we also in our heart to hearts that the world has moved on, that it is different, that the requirements out there are not the same as they were back then. And that many of the capabilities that we've deployed back then are or are becoming ill-suited for the kinds of missions that we're involved in today and are likely to be involved in tomorrow.

By way of example, the Fighter Wing that Lionel mentioned I commanded in Germany in the 92-93 timeframe and which I've been associated with in my operational career from 1971 on, was about as combat capable an organization as I believe the Canadian Forces had at the time – although you'll grant I'm perhaps a little biased in my opinion. But we've invested a lot of money in that organization. We had invested millions of dollars – billions if we look at the Europe in general and hardened aircraft shelters. We had protective shelters, (inaudible) proof for all our troops. We had our command in control structures built in and hardened. We could repair aircraft to battle damage. We could repair airfield damage. We had three at Batten – three highly trained F18s squadrons fully manned and large stockpiles and modern conventional air – air to ground and air-to-air munitions. Quite frankly, we were damn good.

Yet this organization as good as it was would have been essentially incapable of carrying out the missions we asked our pilots and our ground crew and others to carry out in the Kosovo air campaign – Operation Allied Force. Why? Simply because the F18s back in 1992 did not have a precision capability, a precision weapon delivery capability. It did not have the ability to operate at night in the same way that we did in 98. And quite simply, without these kinds of capabilities we simply would not have been invited to the fair.

So, one could also I suppose argue that the billions of dollars that we spent in hardening these facilities in Europe – let me stress here that I'm speaking with the great and wonderful benefit of 20/20 hindsight – was really money that was wasted because of course, they were never used. Thank heavens! And that investment, which I visited by the way last spring – which is now these hardened aircraft shelters house Cessnas or junk and the grass grows up tall around much of the facilities that we built. Basically with the fall of Berlin Wall, all became redundant and unnecessary. And so – and also malposition for where the real threats were now at the time in places like Kosovo and Bosnia and the Middle East - which is all to say I suppose at the end of this part is that when people say to me and you would not be surprised that some do, that the current benchmark for the CF18 Force should be this wonderful four wing Batten that we had back in 1992, I have to tell you that even as a proud ex-commander of that organization, I have a hard time accepting that as some kind of

measure of operational capability.

It's great nostalgia. The beer calls were wonderful. The stories we told were great, but its effectiveness in the day that we live in today is simply not there because of course the kinds of capabilities that we need today are not fixed. They need to be deployable. They need to be employable in a variety of different areas and they need to be precise in their application.

Now, the good news about all of that and by the way this is not to denigrate in any way the capabilities or the enthusiasm or the talent that existed in us and in those we represented. I'm as proud of that organization as I possibly could be. But the good news is that much of actually what we had back then – at least the bits and pieces that we could pick up and bring back with us or could use in other areas – I talked about the F18s, but this is now applicable really across the board – Army, Air force and parts of the Air force. Much of what we had in terms of equipment and doctrine back then, we've actually been able to adapt to today's needs and that would not surprise you. We've got, as usual, great talent in our men and women whether we're talking about the people who are at operational units or whether we're talking about people in the headquarters and that has allowed us to make some changes to ensure that some of the investments at least that we've got have been updated, can be updated to retain their relevance in the future.

Alors, qu'est-ce que nous faisons dans la Force aérienne pour se préparer pour les besoins de l'avenir? What I'd like to do with my remaining time is to try to answer a bit of that question. What are we doing to try to make sure that the things that we have are in the process of getting our upgraded or transformed to meet the requirements that we think are going to be required in the future. And in this regard in outlining those, let me refer again back to the Strategic Defence Review of the United Kingdom and I'll put them into those various categories first starting with the business of ISTAR or Intelligence Surveillance Target Acquisition and Reconnaissance.

First off, it's important despite the fact that I'm here representing the Air Force to tell you that there's one hell of a lot stuff being done in the joint environment in this whole business of ISTAR. In fact, I suspect you might say the lion share are things whether we're talking about joint space projects, which involves surveillance from space surveillance of space, whether we're talking about projects to acquire and exploit unmanned aerial vehicles and that technology, some of which will be worked on by the Joint Experimentation Centre this summer, whether we're talking about collaborative programs with our allies and particularly our allies to the south and so on. So, there's a lot happening in this whole area of ISTAR in a joint environment.

From an Air Force perspective, I would say there are two main components of our contribution of that. The first one being the upgrades that we're making to the Aurora aircraft and we tend to think about the Aurora as a maritime patrol aircraft and I suppose today it's fair to say that to some extent that's still true. But the Aurora in its next iteration will be much more a long range strategic reconnaissance platform than it is a maritime platform. Upgrades to the Aurora include things like a new data management system. We're putting in, of course, a new radar but also a synthetic aperture radar, which will give it a much better

capability of classification of targets and identification of targets, electro-optical systems like flair and low light TV.

And so just that you don't think we totally abandoned the undersea side of things as well also a significant (inaudible) of all of the undersea anti submarines kinds of capabilities, so that the airplanes – as I mentioned – will have not only this long range and strategic reconnaissance capability, but will also actually have a maritime anti submarine capability. And we're also looking at the need for an improved air-to-surface capability in terms of short range or medium range air-to-surface missiles. The latter is not one that we have approved yet in the Department, but we have a study ongoing and we'll be pushing forward with that soon because in fact if we're going to do that, we need to actually define that quickly so that when the DMS – the Data Management System goes in, it actually has that capability built in. If not, we run the risk then in some future year of not being able to do that.

The other thing on the side of CP140 modernization is of course to put in place not only front end, but back end simulation systems which will allow us to train our combat crews with much better reality than in fact we can get in much of our airborne operations these days with the lack of submarines and so on in the North Atlantic in comparison to years before.

The second key investment in the ISTAR bit from an Air Force is in the land environment and that is with the work that's going into our CH146 Griffins. The Griffin will be given a capability – we love acronyms, as we all know – ERSTA – Electronic Reconnaissance and Standup Target Acquisition System. This will be field as early as next year and essentially it will be a reconnaissance capability, a standup reconnaissance capability that fully complements that which is its extent in General Jeffrey's Coyotes and which will improve the Army's overall battlefield awareness and target engagement capabilities, as I mentioned, starting next year.

In terms of command and control, the Air Force has already made some fundamental changes with how we're organized in terms of our headquarter structure. I'm not going to go into that, but the change that created a single operational level headquarters for the Air Force, one Canadian Air Division in the Canadian NORAD region in my perspective, and again I'll admit my bias as a former commander of the organization, has made a tremendous improvement in not only where we can focus things, but in building within the Air Force community a broad understanding of air power. All of those lions that used to exist, the tribes I guess you would call them in army parlance between fighters and tactical aviation and transports and so on. Those, I really believe, are being broken down as we have people operate on a day-to-day basis in a single headquarters and recognize that without one or the other of those capabilities, you do not have true air power. And I believe as we move forward, we will see those same kinds of things continue to develop in a joint sense between land sea and air forces.

In term of technology, the big element of our moves there is to introduce an air force command in control information system – AFCCIS. This is a secure deployable interoperable C2 (ph) system that will support Air Force operations, will talk to Army and Navy organizations, will also talk to our allies both at home and abroad. On the NORAD side,

we're replacing the old FYQ93 rather system which is currently in place, which is the system by which NORAD's command in control has done. We really do need to replace that. We've developed new air traffic control systems, deployable systems that we can set up airfields abroad. Again, in this area we're also supported by joint systems (inaudible) Satcom probably the most important of these because it gives us a bandwidth to be able to talk back and forth. And finally, in an equally important area, we've invested a lot in training our officers to be able to employ these new capabilities and to understand things and events. They're all for operations course and Winnipeg is a good example of that.

In the maritime side, I've already mentioned the CP140. I won't talk about that any further. As the minister mentioned though the Maritime Helicopter Project is an important element of things as well. It is proceeding. I am happy with where we are in the context, certainly as a statement of operational requirements and its translation into basic vehicle requirement and we're confident that that program is going to move ahead.

In the meantime, the Sea King is performing great work out in Apollo and I think it's worth parenthetically mentioning that the investment that we have made in engines and main gear boxes and other associated operational capabilities have really made a – made a difference, of course so do the people who operate it. But the serviceability of Apollo has been absolutely superb, as the Commander of the Navy has reported to me and as have our allies as well.

In terms of land ops, I mentioned the 146 upgrades that are happening, but I would also like to their focus on the F18s because the F18 is a tremendous contributor also for the land battle. Again, I think that came through in Mr. Spiegel's comments this morning, but a lot of what we're doing in this – in the upgrade to the F18 to give it a more sophisticated targeting fought capability, to improve its night vision system, to provide more and more accurate and all weather capable precision guided munitions, to give it secure radios and data links systems, which allow us to talk not only back and forth to air platforms, but also to platforms and individuals on the ground – ultimately will give us that capability that was referred to earlier where single soldiers on the ground with targets available have the ability to employ weapon systems like the F18s in a direct fire support role in terms of land – in support of land operations.

Of course, the other key contributor to the land force operation in my view is air mobility and this whole bit of airlift is a critical feature. The biggest component of that for the Air Force right now in addition to keeping the stuff we've got running is obviously the program we have in place to define the options for future strategic airlift or aircraft. This would be something in the line of C17s or A400Ms or something that will give the Army the ability to move outside cargo, the kinds of equipment that are needed to fight on the battlefield today in a way that's rapid enough to get there again as referred to in our first speaker's comments, get there fast enough to actually make a difference and be employable.

And in terms of their operations, again the issue of F18s – the F18 is being upgraded in that side of the world as well principally with radars and other elements. Now, the other - on the F18s that I thought I'd mention is a program that has nothing to do with flying because it's

actually simulation. But we intend to introduce with the F18 a program called the Advanced Distributed Combat Training System. What this is, for those who are familiar with training technology or simulation technology today is distributed and interactive simulation. What this means is that pilots operating in a simulator or a pair of simulators in cold lake will be able to fly missions with pilots operating the same equipment in Bagotville, with AWAX down in the States, with naval platforms at shore or at sea, with army individuals doing training in land simulation and so on. And really to also do complete mission rehearsals in a very realistic way. I mean, if you want to practice a mission against Baghdad, either alone or in cooperation with your allies, these kinds of systems actually let you go and do it complete with electronic warfare, threats and all of that built in, which is in my view more than just training. This is really force multiplication in terms of its ability to increase the force.

The overall improvements of the F18 will make it an outstanding all weather day night air-to-air and air-to-ground platform for about the next decade and a half and who knows after that perhaps JSF (ph)?

And as I – in finishing off that chunk as the CDS mentioned also of course the modification to two of our Airbuses here to give them an air-to-air refueling configuration will allow it to once again be able to have this integral to our force and the ability to deploy F18s worldwide. Of course, there are a lot of capabilities as well that make up a combat Air Force. We talked about search and rescue yesterday and where we're at in that program. The NATO Flying Training in Canada Program, which we recently introduced in Moose Jaw and Cold Lake, gives us again in my biased opinion the finest pilot training system in the world – bar none – when you put together equipment, facilities, air space, doctrine, and air crew. And I think it's fair to say, Lionel, that the changes we've made to the NAV program in the last while have done the same thing in that environment.

People, as the CDS mentioned yesterday, are the key element to all of the success of this stuff and in the Air Force as in the Army and Navy. I think we're blessed with first class personnel across the board. Recruiting has not been an issue of particular significance to the Air Force with a couple of minor exceptions. Engineering, for example, is one. But the biggest concern we have is obviously the declining experience levels that we've faced largely as a result of attrition. And this was particularly true prior to September 11<sup>th</sup>. There has been a little bit of respite over that period of time since September 11<sup>th</sup> to now, but the demographics suggest – well, in fact, they don't even suggest, I mean it's just mathematically so – that attrition will continue to be a problem for us in the future and particularly in certain classifications, the pilot trade classification being one of those.

So, we're spending a lot of time particularly working with General Couture's team to try to figure out strategies and to find the resources to make improvements in how we not only attract people to the organization, but once we have given them – in the case of pilots these days – really millions of dollars of training, how we retain those individuals for a longer period of time. And there's a variety of things in terms of terms of service, commitments to serve, activity rates, clothing pay, etcetera.

Looking to the future, Chief also mentions strategic plans that we're developing. I'm not

going to go into that in very much detail. We are working on a thing called the aerospace capability framework, which is really just what kind of an Air Force are we trying to be today and out there into the future. We're also working closely with our American allies, the United States Air Force. We have set up a strategic planning forum, mainly to try to understand where they're going in 10 years or so because if you wait until they deploy systems before you start thinking about what it means to be interoperable, obviously you'll never ever be able to get there.

So, we need to that and we've developed a similar context with the United States Navy because of the fact that of course we deal with the maritime air aspect of things.

Let me finish my pitch in talking simply about where I see us at as we speak. So, not about the future, but we are today. I talked about the equipment initiatives are underway and in that regard, I'd say we're pretty much on the cusp. By that I mean we've got a lot of programs that are approved. Many of them are in contract, but a lot of them have yet to have rubber on the ramp and that is going to happen over a course of about the next three years in many of these cases.

There's good news and bad news on the equipment fund. The good news, obviously is we need these capabilities if we're going to be able to work in the future environment. The bad news is that as we field them, we will undoubtedly go through a period of time where we actually have a lessened airframe availability for those systems that we're modernizing or upgrading, but also even for those systems where we're making an absolute change from one platform to another like Sea Kings to Maritime Helicopter because the individuals who will ultimately crew the new Maritime Helicopter are basically the same individuals who are currently operating in the Sea King environment.

And so, we will go through a period of time where we have some significant transitional problems to face.

On the personnel side, I'd say there's also good news and bad news. I mentioned already the first class personnel chunks. The bad news is that personnel shortages and personnel tempo as General Henault talked about yesterday are continuing to cause a problem and I think that that will continue for the foreseeable future even during this transitional period.

On the facility side, we've reduced I think our footprint across the nation as much as we can. We pretty much closed everything we can close. We're in the midst of getting rid of buildings that are unnecessary on all of our facilities in order to save money in that regard. But the reality is that over the past number of years, we have been forced like everyone else in the Canadian Forces to transfer a fair whack of money from what normally would have gone to infrastructure maintenance into operations across the board. And while you can do that for a while, in the long run, it's going to bite us. And so that is a concern.

So, do we need more resources? I think the Minister has said this on a number of occasions. Yes, we do. But he also said yesterday if that's not what Canadians want and if there's not more money forthcoming, then clearly we have to make changes to either activity levels or

personnel numbers or force structure in general to live within our means and to put resources, activity levels and all of these other things into a better balance. Is that my first choice? Obviously, it is not. But on the other hand, we cannot continue I think in the future simply to continue to operate at the levels and at the four structures with operating with today and continuing to pay that either on the backs of our people or by short changing areas like infrastructure and so on.

My bottom line though overall, ladies and gentlemen, is like the CDS I'm optimistic about the future. Do we have problems? I think we do, of course, like any other organization. But the problems are probably no more significant than the problems that you have faced in your time in the service or that you face in businesses and enterprises that you're involved with today. Five years from now, this will all seem like a small blip, I suspect.

Once again, I would say and I openly admit my bias in this regard, the Air Force remains highly capable of doing the job and I think that's being demonstrated by the men and women we have out on the Operation Apollo, on Operation Noble Eagle, which is the NORAD version of operations, and really here in other supporting operations, in support of things in Bosnia and here in Canada.

And so as a chief my sense is, overall not a bad situation. I'm ready to take your questions.

Question: I'm still going to say nice things, Sir, to some extent.

(Laughter)

I can't be completely nice. I'm not built that way. One of the things that's been bothering me since way back when I was in the service, I agree that we are updating our airplanes. We're doing the very best we can. We have skilled crews. Everybody is well trained. We do everything well, but somehow it bothers me that we don't have what we used to call war time stores of munitions. As you know, I think probably the war in – the business in Kosovo just ended in time because I suspect we had run out of smart bombs and all the rest of the things.

What is the situation now with – for (inaudible) of a better term – war time stocks of munitions because the best airplane in the world with the best radar and the most skilful pilots, if we don't have anything to shoot, its not a hell of a lot good to us. And are we planning for a 30 day war, a 90 day war or where are we in this business of emergency munitions, war time stock?

**L.Gen. Lloyd Campbell:** A very good question. And if you'll recall back in the Cold War days, NATO had stockpile planning numbers that we all tended to try to meet. I don't think anybody particularly was fully successful at least in all natures of ammunition of maintaining 30 day war stocks in theatre and so on. But of course with the end of the Cold War, NATO itself has struggled with trying to define a replacement for that because it was all based on – you know, a representative or a least a catalog of targets and a desire of how many each

nation would get to service, to use that euphemistic term.

Trying to come to grips with Apollo within the NATO context has been very difficult. The nations have been left to kind of go it alone in that. We have, in the Air Force, actually developed – certainly for the F18, not for all of the fleets yet, but certainly for the F18 we have developed a stockpile planning guidance program, which we're working to fill out. We've just approved organizationally it's going through the system - it should go to contract here very shortly – about a \$40 million buy of munitions which will add about just under 1,200 precision guided munitions to our stocks. I won't go into what those stocks are today, but they're not zero. We have a reasonable capability there.

But this challenge is one that will tend to cause us some challenges in the future as well. In our cases, while we were going there, is also – and it goes back again to the discussion earlier this morning – is the need to move to precision guided munitions that have an all weather capability. If there was one limitation in our operation in Kosovo, we were not alone by the way, and I think it was generally across the organization, there was a dearth of munitions available to do all weather attack and in the weather conditions that existed for at least a significant part of the campaign, this cost some real problems with laser guided munitions. So, we're moving also to not only build up our stocks of LGBs, which are important, but to move to another generation as well of all weather precision guided munitions. In order to use them on the F18s in other than a very limited way, we really do need to move to a new targeting pod. So, that's where the focus is right now.

So, we do have a stockpile plan and work is underway to fill it.

Question: Charles Temple. Military (inaudible) Association. During the transition, I don't have the vocabulary to pose the question because some of the old terminology, you know, brings with it a lot baggage. You mentioned part way through the need to be deployable, employable and precise in referring to capabilities in where the future goes.

I'm just curious and if these are the wrong words, but what is the future of carrier based either air surveillance platforms or weapon platforms and what' the relevance of the future of carrier based capabilities to Canada?

**L.Gen. Lloyd Campbell:** Very good question. I mean – I think I'd attack that one first by talking about carrier-based aviation in general. I think the stock in carrier-based went up a notch or two with the Afghanistan conflict probably more so than had been the experience in either Kosovo or in the Gulf War. And of course, the reason for that was the challenges that everyone faced – the Americans included – in terms of basing. And basing of course is particularly in very short notice is really a buck there. I mean for those who disparate about why it was that we didn't get our Hercules and our Auroras (inaudible) dodge faster than we did, you have to understand it was not because of readiness of the troops to move or readiness of the airplanes to go, it was – it was the ability to sort out the diplomatic elements of things and get approvals and so on.

So, I would say in general terms carrier-based aviation has moved up a notch in its stock,

particularly as we look at again the kinds of opponents we're likely to see out there. I mean there was a lot of discussion in sort of the latter days of the Cold War, but the vulnerability of carriers to another superpower. But in the kinds of environment that we live in today, you'd have to say that threat probably has decreased to some extent and the utility of the platform has increased.

Where does that live Canada? I don't see us getting into the carrier business as much as it would be a wonderful thing to do. First of all, it's very complex. One doesn't – I'd hearken back to the Soviet Union when it existed and their work to build a carrier capability. They could build a platform, but I suspect had they even put all the resources and might to doing it, it would have taken them at least a decade probably closer to two to actually develop the ability to operate that kind of a complex business because those of us who have seen the U.S. Navy do it recognize how difficult it is.

Are we going to go there? I don't believe we will.

Question: Would there be any advantages of having Canadians who could operate in the coalition capacity (inaudible) capabilities from somebody else's carrier?

**L.Gen. Lloyd Campbell:** Well, I think Admiral Buck will tell you in his presentation or in questions that we are. In fact, that's precisely what our Navy is doing today in a lot of its efforts is working in a niche capability as part of the carrier battle group to protect that ability. We do, of course, have exchange people who operate with the Navy in that regard. But I think you'll understand to try to deploy that capability, given the kind of budget that we have and the cost of even a single carrier, let alone enough to make a difference is not an area that personally – as much as it would be delightful and I'm sure Admiral Buck would love to have a carrier or two under his command. I don't see that we're going to go that way.

Last question.

Question: General Tim Porter from the Navy League. I'm so relieved to hear that in fact the successful upgrade of helicopters has worked out well in the war against terrorism. I hope I'm right here, but there's a quote I believe that you or a former CAS put the MHP as your number one priority and I understand that the delivery time at the moment is forecast to be about 08 or so. I'm just wondering if there's anything you can do to move that along a little faster because notwithstanding the upgrades, I think we still need a helicopter particularly Sea King replacement.

**L.Gen. Lloyd Campbell:** Well, there's no question about where it sits in the priority list and I would say not only on my watch, General Kinsman's (ph) watch, General Duquetteville's (ph) as CAS with obviously the support of the Navy here, this has been a very – a very high priority, the number one platform requirement.

I'm not going to get into the politics side of things and what that has or hasn't done. I guess if there's a silver lining to the cloud that some people see here, the facts are – is that we're now in a circumstance where I believe there are a good number of very serious competitors who

are competing for this project, which at the end of the day has to benefit all of us and that there are good airplanes out there that can fill this need.

The time delivery point, I meant the Minister has said – I think still continues to say 2005 and is that doable? Potentially depending on serendipity, I suppose, it really depends on which platform is chosen, which mission system contractor or group of contractors wins that competition, how neat a mesh they make or are able to come up with to deliver things. For those who are – I mean in terms of 2008, you have to – and I think you do know this – you don't just put a capability in place anyways. So even if we start delivering the capability in 2005, the last deliveries will still be taking place out in that period of time, which is why we've chosen with the Sea King to make sure that we can extend the airplane at least out to the 2010 timeframe, so that in fact we cover the entire transition.

Are there things we can do? I don't think beyond what we're doing, we've got a great project team over in (inaudible) materiel, an ex-Navy officer actually Paul Lebrun (ph) is running it. I think we've got all the right connections into industry. I think this pre-definition, pre-qualification period that we've been doing is smart work because all of the industry folks that are out there understand what we're looking for so there'll be no surprises.

So, my expectation is we're going to be able to move quickly, but we also recognize that you just don't go down to your corner helicopter store and you know, spend \$3 billion of taxpayers' money and get a product and bring it into service.

Thanks very much.

Moderator: General Campbell, in thanking you, we note that you've given us the Air Force combat capability in perspective then and now. You've explained why the "then" wouldn't work now, why the "now" won't work for the future and how the Air Force are preparing for the future with all of the improvements.

In doing all that and giving us all that information, it's essential for the associations here to know where the Air Force is going, so that they can support the Air Force, the Army and the Navy and you've gone out of your way to do that extremely well.

As an aside, I'd like to compliment you and the other chiefs for the management of the downsizing over the last number of years. As we look at it from our perspective, we've seen that you've been short of money and short of support at many times and you've had to give up some great capability, which you'd like to keep, but the management of the downsizing of that and keeping up the capability, we're all impressed. We'd like to thank you very much for your inputs this morning to us.

(Applause)