



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

## **Standing Committee on National Defence**

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NDDN



NUMBER 026



1st SESSION



41st PARLIAMENT

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**EVIDENCE**

**Tuesday, February 14, 2012**

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**Chair**

**Mr. James Bezan**



## Standing Committee on National Defence

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• (1405)

[English]

**The Chair (Mr. James Bezan (Selkirk—Interlake, CPC)):** Good afternoon, everyone. We're going to kick off the official part of our meeting today.

We've been having a great tour. We were in Toronto yesterday and here in Kingston this morning and we've been having a number of really positive discussions on our study on readiness.

We're going to continue with this in the official format pursuant to Standing Order 108(2) and our study on maintaining the readiness of the Canadian Forces.

We're joined by a number of witnesses. From the Royal Military College of Canada, where we were earlier this morning, we have with us Dr. Joel Sokolsky, who is the principal, and Dr. Michael Hennessy, professor and dean of continuity of studies in the department of history. From Queen's University, we have with us Dr. Douglas Bland, who is the chair of defence management studies program at the school of policy studies, and Dr. David Skillicorn, who is a professor in the school of computing.

I welcome all of you.

I'll also say for those in the crowd that we will offer an opportunity at the end of the meeting if anyone wishes to make a brief statement to the committee as it relates to our study on readiness. I know that we have a number of students here from Queen's. We're glad you're taking an interest.

We're also joined by General Glenn Nordick, who is retired. Welcome, General.

With that, I think we'll kick it off.

Dr. Sokolsky, you have the floor.

**Dr. Joel Sokolsky (Principal, Royal Military College of Canada):** Thank you for the opportunity to appear before the committee.

[Translation]

Canada needs to retain land, sea and air forces ready to deploy overseas in multilateral combat operations. Past practice suggests, however, that we cannot predict where such operations will take place, nor their exact nature. The reality is there is no certainty as to what precisely we need to be ready for. Moreover, because of the very favourable strategic situation that Canada finds itself in and the national political culture and domestic policy environment in which

defence is unlikely to be at a paramount government priority, defence expenditures will always be under fiscal pressure.

[English]

But this has not and should not prevent Canada from using the Canadian Forces as an instrument of foreign policy and making effective contributions to a variety of multilateral operations. The important concept to bear in mind is that there is a large measure of discretion when it comes to overseas readiness requirements and operations.

As such, decisions can and will have to be made as to which capabilities we should retain and which operations we participate in, since we cannot be ready for everything and accept every request. But owing to the nature of the international environment and our national interests, we have the luxury of choosing which forces to acquire and which operations we will participate in, and the option of tailoring the size and composition of our overseas military commitments.

The Canada First defence strategy rightly draws attention to the direct defence of Canada and domestic requirements. Domestic operations and collaboration with the United States in continental defence are not discretionary, yet, as in the past, the demands of domestic operations or of continental security will not determine the majority of readiness requirements of the Canadian Forces.

The dispatch of forces overseas in support of empires, allies, and multilateral operations is deeply embedded in the Canadian strategic culture. Facing no military threat to its own borders and waters, identifying its security with that of the west, especially the North Atlantic Treaty Organization, and wishing to play a role, albeit an acknowledged limited one on the global stage, Canada has generally not hesitated to deploy abroad, even when in the past it has hesitated to provide the wherewithal to do so effectively.

In the post-9/11 era, such deployments have also been important in terms of assuring the United States that Canada takes American homeland security seriously. Since Canada always deploys alongside others, Ottawa has been able to choose where it dispatches forces, and the size and composition of the deployment.

Ever the realist, Canada's deployment decisions are driven by the need to maximize domestic and foreign political benefits and to minimize costs. But in keeping with the recent desire to make a difference on the ground, such decisions now also take into account whether the forces deployed, however limited, can fulfill the missions required and contribute to the coalition effort.

The first decade of the 21st century saw Canadian Forces operating all over the globe. Over the past ten years, Canada has dispatched army, navy, and air force units to a wide range of overseas operations, from anti-terrorism and counter-narcotic patrols in the Mediterranean and Caribbean to peace support missions in the Congo and stabilization operations in Haiti and Kosovo. This is in addition to maintaining participation in a number of Cold War-vintage classic peacekeeping undertakings, such as those along the Syrian-Israeli border, in Cyprus, and in the Sinai.

But these missions usually involved small number of personnel—sometimes less than 10—and were for short periods of time. From 2001, and especially since 2005 until the summer of 2011, the costly combat mission in Afghanistan—in terms both of lives lost and of resources expended—was the focus of Canadian defence policy and has been the dominant operation for the CF. Even with the ending of the combat mission, the 900 or so personnel assigned to NATO's training mission in Afghanistan will constitute the largest of the CF's current overseas deployments.

When combined with the recently completed Libyan mission, wherein Canada dispatched naval forces, fighter aircraft, and other units in support of NATO's application of force, and where the air campaign was commanded by a Canadian officer, a general, it appears that Ottawa is on the right track in being committed to sustaining a relatively small yet highly effective expeditionary combat-oriented capability. This is a posture which the CF has desired and which Canada's political leaders have found useful to maintain.

This does not mean that the government will allocate more than the present 1% of GDP toward defence or that the current financial situation may not result in reduced increases in defence expenditures. But the legacy of the last decade is that the CF has become an important instrument of Canadian foreign policy, not just for peacekeeping or stabilization missions, but where the direct application of military force as part of coalition combat missions is required.

Not all missions we decide to participate in will be combat missions, but all should all should be linked to a combat capability informed by a high level of military professionalism. For example, the decision to send Canadian special forces troops to help train Mali's military to deal with al-Qaeda insurgents is consistent with Canada's strategic culture of overseas engagement, its post-9/11 desire to support U.S. and western anti-terrorism efforts abroad, its ability to select when and how to undertake those engagements, and the present spirit of world-class military professionalism within the CF that has emerged from the Afghanistan experience.

• (1410)

The commitment also suggests, as did the successful Libyan operation, that even as it copes with the legacy costs of Afghanistan and the current financial constraints, Ottawa needs to and can remain a global actor willing to use the military as an instrument of policy. We need to be ready to do what we can where we can, bearing in mind international and domestic constraints. Such deployments need to be consistent with our tangible economic and security interests as well as our values, which in a democracy are legitimate intangible interests that may require the use of force to be fostered overseas.

It is also evident in the recent policy and defence expenditure decisions being made by the United States that a Canadian readiness posture that recognizes the need and ability to make choices with regard to overseas capabilities and commitments will not put Ottawa at odds with the position now being taken by our major ally. And as I do not believe that America's other allies, given their own domestic situations, will step up to fill any void created by reductions or realignment in the U.S. military posture, the present Canadian approach will be entirely consistent with those of nations whose interests and values we share.

To conclude, speaking as a faculty member and principal of the Royal Military College, I can say that because there is no certainty in the future strategic environment about where Canada may next deploy forces—because Canada will be able to decide where and how it deploys and because this will entail the need to make choices, both in the long term and on short notice—never before has professional military education at the university level, with its broad teaching and research dimensions, been so essential to maintaining the readiness of the Canadian Forces. Readiness requires leaders, and leaders require education.

Thank you.

**The Chair:** Thank you.

Dr. Hennessy.

**Dr. Michael Hennessy (Professor, Department of History, and Dean of Continuing Studies, Royal Military College of Canada):** Thank you, sir.

I must point out that these are personal comments, and they are not reflective of the opinion of the Department of National Defence. I'll read most of my statement.

As a historian, I am pretty loath to make any predictions of what the future is going to look like, except to know that the future is uncertain, but we have some certainties about what's going to be there. We know enough of the uncertainties to suggest some essential coping strategies for ensuring a robust response to emergent, though perhaps unanticipated, challenges.

The known knowns of the "Future Security Environment" start with the usual bromides, which you'll see everywhere. To summarize these points, we face an emerging, complex, challenging, and uncertain future security environment: rogue states, however and whoever defines them as such; the rise of Brazil, India, and China; the decline of our traditional allies within what you might call the "Anglo-sphere"; potential resource wars over water, oil, or rare earths—take your pick; new access to the Arctic northwest and northeast passages; atomic, cyber, biological, and chemical warfare and threat proliferation; and global al Qaeda and other transnational terrorist threats. To this mix, add the never-stable new fiscal reality. These and similar issues are not going to go away any time soon.

However, except for Arctic issues and sovereignty patrols, our forces are structured primarily for highly discretionary external deployment. With fifteen years of large-scale experience in such external deployment, the CF are arguably much better organized to deploy and to sustain these external commitments than ever before, and that experience includes all of our First and Second World War experiences. In particular, there are much better command, control, coordination, communications, and intelligence facilities, not just for the deployed forces, but also for our headquarters in Ottawa and for the national command authority. They are much better prepared now than in 1995, 2001, or 2008. I'll return to these significant developments before I close.

Our forces require the ability to remain part of the first-tier potential combatants, or to at least be close enough to be an attractive ally to those who are in the first tier. There's a big technological bill to be paid there. That places a burden on our forces to maintain and to keep all of the standard conventional technologies, as well as many of the organizational and administrative arrangements that make it look like a military, while also evolving and responding to bring in new capabilities, some of which are very non-traditional capabilities and capacities at that. Recapitalizing the Canadian Forces both to meet the known traditional issues and to deal with new ones will remain an ongoing challenge. The new technologies are too capable to ignore—weapons are faster, more accurate, more destructive, more stealthy, and of greater range. In the game of survival on a modern battlefield, all of those characteristics are of telling consequence, because one can't bet the short game on second chances: all of the technologies conspire to not give you a second chance. Our forces are not necessarily optimized for long, drawn-out mobilization and the slow buildup of forces; they are geared for the short game.

But readiness is not simply about the kit or the command and control. The most important element is certainly the people in the Canadian Forces and in the Department of National Defence. Both are dependent on attracting, developing, and retaining the right sorts of people—those with the personal strengths, mental agility, physical dexterity, and emotional resolve to thrive in harm's way, while upholding the best of Canadian values. Career and service conditions help ensure some of that robustness. However, to be agile in the face of changing circumstances and unpredictable demands, all members require a high degree of what American literatures refer to as cognitive readiness, which is the intellectual and mental disposition to rise to those challenges and to formulate new responses.

As you know, armed forces train according to doctrine, and doctrine, in theory, is based on captured experiences and reflections on that experience. But what is taught as rote knowledge in doctrine is almost always a step or two behind contemporary experience. As our forces draw back from large-scale external deployments, the range of experiences will diminish and hard lessons may be lost. This is most particularly true of the army. The navy must always have ships that float and make headway, just as the air force must know how to fly and will continue to do so, with or without external deployments. But an army must often sit and wait, and that can be corrosive in many ways. Active training regimes are expensive but essential. Moreover, we can learn a very good deal by watching and studying the experiences of others. To be ready for a come-as-you-are war or deployment, there must be an investment in the long-term

preparation of minds for the travails of war—and substitute other things besides war if you'd like, such as conflict; defence posturing; alliance or coalition cooperation or coordination; the framing of new tactics; operational techniques; or the incorporation of, or responses to, unimagined new weapons systems. All of those things need well-prepared minds.

● (1415)

That means an investment in the minds for the strategic leadership and resource management skills from the lowest to the highest levels of the organization. Cognitive readiness at the tactical and operational and higher levels is the foundation of CF and DND agility but receives very little attention or recognition.

A little plug for RMC: What we do at RMC, at RMC Saint-Jean, and with our faculty at the Canadian Forces Command and Staff College in Toronto helps set some foundations for the cognitive readiness of the forces.

Attracting, developing, and retaining the best is an enduring challenge, but DND and the CF are not synonyms. The department has responsibilities—e.g., defence diplomacy, defence policy, things like security, CSE, and other capabilities—that are not part of the Canadian Forces. These also require consideration and attention when we consider all aspects of future readiness.

The experience of the past decade and a half has illustrated that such a cognitive foundation was not pre-existing at the highest levels of government. I could elaborate on examples and historical reasons DND was not, for instance, geared to be a war-fighting headquarters. The great strides made in developing national command-and-control coordination and intelligence assets over that period of 15 years illustrate the extent of some of the deficiency. As said previously, these capabilities and others, even more esoteric capabilities in, say, human intelligence and influence operations to name but two, are far more developed today than they were even a decade ago.

As we look to the future, the hard-learned lessons of the past 15 years should not be overlooked, but could be easily overlooked if not properly recognized. Whatever the future holds, it will be the people in the loop who make the difference between being prepared and not being prepared.

Thank you, Mr. Chairman.

● (1420)

**The Chair:** Thank you, Doctor.

Dr. Bland, you have the floor.

**Dr. Douglas Bland (Chair, Defence Management Studies Program, School of Policy Studies, Queen's University):** Thank you very much, ladies and gentlemen.

Just as background, I spent 39 years in the Canadian Forces as a Canadian army officer, and in the last 15 years I've been developing a unique study program here at Queen's that studies the defence administration—in other words, where all the money goes. I thought that in the context of speaking about readiness, I would talk to you for a few minutes about the connection with the current topic of transformation and what that's going to mean for readiness in the Canadian Forces.

Senior defence officials and Canadian Forces officers are today huddled inside National Defence Headquarters looking for administrative efficiencies to contribute, by some accounts, as much as 10% of the defence budget to the government's deficit reduction action plan. The dilemma facing Minister of National Defence Peter MacKay is to find a way to slash future defence budgets without obviously negating the Conservative government's defence policy or the Canada First defence strategy or greatly decreasing Canadian Forces' military capabilities.

His response to this difficulty so far has been to commission a transformation 2011 study directed by Lieutenant-General Andrew Leslie, who, I'm sure you all know, is now retired. The aim of that paper was to develop ideas to increase efficiency and effectiveness, and to act as the driving force behind organizational changes needed to reposition the Canadian Forces and the department for the future. Mr. MacKay thus joins the ranks of other ministers who throughout our history have championed administrative tidiness as the best way to maintain Canada's defence capabilities as budgets fall.

Minister of National Defence Paul Hellyer in 1962 declared: "We must greatly increase defence spending or reorganize". The decision was to reorganize. His reorganizations produced few savings, and defence capabilities declined.

Pierre Trudeau cut the defence budget severely in 1972, promising that maximum effectiveness of the organization and management of the entire department and the forces would save capabilities. Capabilities declined again.

In 1994 Jean Chrétien declared, "Everything will be made leaner... which will mean more resources devoted to combat forces and less to administrative overhead". His smaller armed forces were incapable of conducting modern military operations, a fact displayed in the 1990s campaigns in the former Yugoslavia and in Zaire in 1996, which soldiers still refer to as the bungle in the jungle.

The assumption that administrative tidiness will release defence funds to improve operational capabilities is challenged by two difficulties. First, attempts to eliminate untidy parts of the defence structure are always stoutly resisted by those in it. As General Leslie notes, officers and officials he interviewed "argued for the preservation of the status quo with every particular organization... each of which is believed to be very important to the whole by the people who are in it".

The second problem—and the case in every reform since 1962—is that savings from defence transformations were taken away from

the national defence budget and reallocated to other departments or to other priorities, such as deficit reduction, thus cutting even deeper into military capability.

The 2012 transformation scheme is based on—and this is a quote from some research I've been doing at National Defence Headquarters, from a source—the idea of "resetting" the Canada First defence strategy. It's rhetoric meant to suggest that the strategy's objectives are confirmed and are merely being reprogrammed into the future as the defence establishment is transformed to enable the Canadian Forces to do more with less.

Under this version of transformation, Canadians should expect Peter MacKay to announce several permanent changes to the organization of the Canadian Forces and the Department of National Defence. For example, in my estimation, he will likely transfer hundreds of military personnel or personnel positions from Ottawa to military duties elsewhere in Canada, downsize the Department of National Defence public service staff, and collapse redundant branches within the department. He will close or relocate so-called support bases or facilities meant to serve the reserve force—for instance, in Toronto and Vancouver—and send them to distant permanent bases. They will reduce the reserve force, probably by several thousand people, and, especially, eliminate large segments of the senior officer ranks in the reserves.

As well, they'll cancel scores of civilian contracts, including those that employ civilian doctors and medical facilities to serve members of the Canadian Forces. They also will cancel dozens of contracts for new equipment, construction, and academic research.

I expect that they will close several small military bases or reduce them—all except, of course, Goose Bay, Labrador—and concentrate displaced units on a few larger bases. There will be a reduction in military training, pilots' flying hours, naval deployments, and military operations generally. There will be an elimination of old and expensive-to-maintain military equipment, such as the older fleet of C-130 transport aircraft, the navy's four troublesome submarines, and aging fleets of army equipment, and perhaps there will be a grounding out of the Snowbirds aerial display team.

Finally, as ministers have done before in these situations, they will make promises to reduce administrative overhead throughout the Canadian Forces and DND to increase combat capabilities.

When Mr. MacKay announces these types of efficiency measures after the budget is tabled in the spring, he will surely face a lot of criticism and many challenges from interest groups and from those who will claim that the government is abandoning the Canada First defence strategy. However, the minister, I suggest, will simply respond with defence ministers' traditional hopeful promise made in the face of deep capability cuts, and I quote: "Everything will be made leaner...which will mean more resources devoted to combat forces and less to administrative overhead".

Canadians should be wary of this old defence policy canard—that is, defence cuts disguised as transformation. As is evident in every case since 1962, every government's policy aimed at finding efficiencies to allow the Canadian Forces to do more with less has produced in fact military forces capable only of doing less with less.

•(1425)

Thank you, Mr. Chair.

**The Chair:** Thank you.

Dr. Skillicorn, your turn.

**Dr. David Skillicorn (Professor, School of Computing, Queen's University):** Thank you for the chance to appear.

I'd like to talk about two things, the first of which is how intelligence analysis tends to work in the forces, and also in the more civilian world.

In general, analysts are trying to find interesting things without quite knowing what they're looking for. In adversarial situations, adversaries are trying to come up with novel approaches, and therefore you're always looking for something new, and you can't do this based on a set of rules or limited known patterns that you might already happen to know about. This means that analysts are constantly having to think of new hypotheses and be very creative, and even imaginative, about what they're looking for. When they come up with something they would like to explore, the general strategy is to ask, "Is there evidence for this?" These days that generally means, "Is there evidence in data that we've already collected for this?"

Unfortunately, the way that tends to be implemented, physically or virtually, is that this request is thrown over some large wall to the people who guard the data. They go and see whether there is, indeed, any evidence for this hypothesis in the data, and then they write a report about it and send that back to the analyst. This process can take weeks. The people interrogating the data and writing the report do not have any context and therefore cannot say, "There isn't what you were asking about, but there's something very similar to it", because they simply don't know. If new data arrive the day after they wrote the report, nobody notices. This is a very ineffective and deeply flawed way to do intelligence analysis.

There's a way to do a lot better, but it's subtle and it's hard for people to appreciate. It is that the data itself can generate its own hypotheses. At first this seems like magic, but it's really not. In an adversarial setting, it's usually plausible to assume that anything that's common is normal, and therefore anything that is exceptional deserves some further exploration. That is the key to making this process work.

It's possible, algorithmically and inductively, to put in front of the data computational engines that will throw up hypotheses for which there is some evidence. The role of the analyst now is different, but inherently simpler, and that is simply to judge whether those hypotheses are plausible or not, and if they're not, to feed back into the process an indication of why that is. Often it turns out there are technical collection problems of various sorts, but sometimes it's just a lack of sophistication in the inductive process itself.

This push from the data towards the analyst is much more effective and cost-effective than trying to get the analysts to pull from the data, for the reasons I've outlined.

The reason this isn't being done is partly a cultural one: analysts tend to be trained in the social sciences, and they do not have the data analysis background to either see or understand, naturally, the kind of process I've outlined. My suggestion would be that it's important to get the benefit of this kind of approach by cross-training, as it were, people with social science and data analysis backgrounds, rather than the current set-ups, which are very much based on quite strong separations between people who are called analysts and people who handle large amounts of data.

The second thing I'd like to talk about is cyber-security, which I understand you heard something about yesterday as well.

My first point is that organization matters. All of the western countries have struggled with the issue of which parts of government should do cyber-security, malware, and things like that, and all of them have not come up with a good solution, with one exception. The U.K. government, more or less by accident, included the economic well-being of the United Kingdom in the mandate of the Government Communications Headquarters. That has meant that for a very long time, the people at Cheltenham have taken on board all of the issues that in other countries have struggled to find a home.

That's paid off for them in a very big way, because it turns out there are major synergies between the things you have to think about to do cyber-security and the things you have to think about to do signals intelligence, in both directions. That's the reason why GCHQ is both the world leader in signals intelligence and the world leader in cyber-security.

So I would suggest that for the Canadian government, which faces the same issues, the Communications Security Establishment is the right place to put cyber-security and all of its related issues.

Secondly, it's very easy, particularly from a military background, to slip into a castle model of cyber-security. You can see in the words that people use to describe things like firewalls, intrusion detection, and spam filters that there's this metaphor underlying all of those things that suggests we can live inside enclaves of purity and keep the bad stuff out. That simply is not plausible in today's world.

We have to find ways to live with compromised environments. I would suggest that the human immune system is at least an interesting metaphor for that. Although our bodies are good at keeping out certain kinds of bad things, they also have major things going on inside us that, as it were, patrol for bad things that have invaded the first level of defence.

•(1430)

That's a difficult model to have. We have not learned to think in that way, but it is important that we head in that direction rather than aiming for an ultimately futile perimeter view of cyber-security.

Third, there are no borders on the Internet—I think this fact is fairly widely appreciated—so attribution is incredibly difficult, and that means that some of the things the military has traditionally used will not work. You can't tell who attacked you. You can't even tell what kind of “who” attacked you. Whether it's a state actor, a group, or an individual, it's impossible, in general, to distinguish those things. That means we have no leverage from ideas like retribution. Something like détente is simply impossible to deal with, so prevention is the only path for handling cyber-security in the end.

Thank you.

**The Chair:** Thank you, Professor.

Thank you all for your opening comments.

We are going to Mr. Christopherson for seven minutes.

**Mr. David Christopherson (Hamilton Centre, NDP):** Thank you very much, Chair.

Thank you, gentlemen, for your presentation. It's good to see a couple of you again. We saw you this morning.

As you know, we're studying readiness, and it's almost like looking at a circle and trying to figure out where the beginning is. I thought, Professor Hennessy, you gave us a good start down that road when you referenced leading in with your Rumsfeld “known knowns”. It seems to me that when we ask anyone in the military about readiness, the first thing they say is “We're ready” without knowing exactly what it is they are ready for. From their point of view, readiness seems to be very much “Are you ready to respond as well as you can to what we ask you to do?” and the answer is “Yes”, and they are. But I think our question of readiness needs to be at a much higher altitude, at more of a macro level.

Professor Hennessy, you talked about the known knowns of the future security environment starting with the usual bromides—we face an emerging, complex, challenging and uncertain future security environment: rogue states, etc., and then you come to potential resource wars—water, oil, rare earths, etc., and of course the etc. would be food. This takes us to climate change, and you list a number of others.

In terms of our getting ready and knowing what we're getting ready for, you've outlined these sorts of things. Would you please give us your thoughts on the components that would make up the future CF vis-à-vis the issues you've identified to which we're going to have to respond, and what changes within the CF those would entail? Is it just what we have, but more of it?

•(1435)

**Dr. Michael Hennessy:** I think it just highlights the problem. We have to have a certain type of conventional military force, because conventional military challenges remain. Investing in esoteric threats doesn't always seem cost-effective, and we have an organization that is used to just lumbering on with potential types of missions. In

many ways, that has worked and can work and in fact has to work, because we don't know the future.

You can go back through Canadian history. The Canadian navy, on the eve of the Second World War, was told that its mission was coastal defence, that it would not operate on the high seas, and the United States would take care of Canada's ocean borders. Within 12 months of the beginning of the war, the navy was operating across the Atlantic. The United States had withdrawn from the Atlantic, and Canada was well on its way to mastering operations on the high seas globally. So no one could prepare for that.

I think that is just a reality of military planning in a vacuum with resource constraints, because all sorts of scenarios are possible. How much do you wager? The best response is to have a very agile organization, and it really takes agile people who, when faced with crises, are able to cobble together respectable responses.

Would some of those challenges need real capacity-building now in a new way? If you look back over the past 15 years at the capacities that were built at the national level for intelligence sharing, for command and control, for some of the types of roles and missions that are outside of the normal rules set, we see a much more robust armed force. Trying to capture how robust it has become is a challenge, because all the changes that have gone on are not well known to the outside world. I'm not even sure most of the Canadian Forces understand all the changes they have gone through in 15 years.

Part of it is having an organization that is even self-aware of what just an operational tempo has required them to do, because to most of the organization, those changes would be invisible. That's part of the cognitive problem.

So is there a crystal ball and a set answer? No.

**Mr. David Christopherson:** Thank you very much.

Could I just throw that same question to any of our other presenters and see if they would like to comment?

**Dr. Joel Sokolsky:** I agree kind of with what Michael said.

I wanted to convey that the world will be beset with all sorts of crises that might arise out of food, resources, and civil strife. Not all of these crises will directly threaten Canadian security. In fact, most of them won't. Therefore, we will be fortunate enough to make decisions. If we don't have the capabilities that are suitable, then we won't go. I think that's something we need to recognize.

What do we have to be ready for? We have to be ready so that when the government decides, given military advice, that it can make a contribution, then what we put on the ground is useful to our allies and will not unduly endanger the forces. You can think of a whole list of scenarios in which there will be challenges. Most of them will not directly affect Canadian security, and most of them will not allow for a military solution. That should be a source of comfort to us.

We have, for example, the latest U.S. policy statements, which talk about a pivot to the Pacific. Now that the Chinese Deputy Prime Minister is visiting, as one commentator put it, we should just call it a pirouette, because we don't want to get them too excited.

With the Chinese navy rising, if it is indeed rising, does this mean we shift to the Pacific? Does this mean we invest in more capital forces? It's not clear that this is what we should do. We will need a minimal capability to patrol our own oceans. Since, on the naval side, we don't have a coast guard and a navy... We use the navy the way countries like the United States would use the coast guard. So a credible naval presence is possible.

We will likely deploy abroad, so some sort of strategic lift is going to be necessary. But we're not Federal Express: we don't absolutely, positively have to get there overnight. Therefore, investing further in rapid deployment may not be what we want.

This is where choices have to be made.

Look at where we've gone in the last 15 years. If you were a planner in NDHQ in 1989 and you predicted we would be going to Yugoslavia, Haiti, Somalia, and particularly into Kosovo, and then into Afghanistan, you might have had a short career. Yet that is precisely where we were going. It seems to me, and this is where General Hillier may... If we do go, we need to be large enough to make a difference; we must be useful to our allies; and we must not unduly endanger the mission or the forces we send.

One thing—and this has been part of our discussions, and if I may say so, I think it's more academic—is that when we deploy abroad, we influence others by deploying. Do we make a difference? Does the President of the United States say, “Canada, you have permission. Come down to Washington and tell me how to run things”? Influence is a very difficult thing to measure overall. I think we should go where we can make a difference on the ground. It's in our interests, or it doesn't conflict with our interests. And as I've suggested, it's consistent with our values. Minimal capabilities will have to be retained, but we won't be able to go everywhere and support every ally.

• (1440)

**The Chair:** I'm going to have to cut you off, sir. We're running out of time.

**Mr. David Christopherson:** Thank you very much for your answers.

**The Chair:** Mr. Strahl, you have the floor.

**Mr. Mark Strahl (Chilliwack—Fraser Canyon, CPC):** Thank you, Mr. Chair.

Thank you, witnesses, for your testimony this afternoon.

Dr. Bland, I appreciated your history lesson in terms of the pitfalls that many a former prime minister and former minister of national defence has discovered when they've tried to find efficiencies, as they call them, in the Canadian Forces budget.

As you've indicated, when General Leslie spoke to the different parts of the Canadian Forces, every one of them was essential to the continued operation and to continuing to meet the goals and core capability requirements. You had similar comments about your predictions of what may be included in the upcoming budget and what effect that would have on the core capabilities of the Canadian Forces.

I guess I understand that perspective. Certainly as a Conservative, having been part of a government that has invested significantly in the armed forces, I understand that perspective.

On the other hand, my constituents tell me from time to time that certainly in an organization that has a \$20-billion annual budget, surely not every dollar spent there can be sacrosanct. As a government, how do we find that balance with regard to the concern for readiness and wanting to ensure that the core capabilities of the Canadian Forces are maintained? How do you maintain that perspective while at the same time wanting to be able to find, in such a massive organization, inefficiencies? Surely we can do both.

• (1445)

**Dr. Douglas Bland:** Sure. I would love to spend a few months sorting out the inefficiencies at National Defence Headquarters, but they won't let me.

**Voices:** Oh, oh!

**Dr. Douglas Bland:** The point is not that there aren't inefficiencies, and it's a whole other question as to what that means. I'll come back to it. The point is that in all these cuts... When I joined the armed forces a long, long time ago, there were 125,000 people in the armed forces. We had ships and a navy with aircraft carriers and great big fleets of fighter airplanes and all kinds of other planes. We were deployed. I and a lot of my colleagues were deployed with 10,000 people in Europe. We had nuclear weapons. Now we have maybe 67,000 people with very old equipment, old aircraft, and so on. So the capabilities—and therefore our readiness to do things—have been gradually going down.

So when governments are looking for a pot of money to advance needy projects—old age insurance or whatever, things like that—the defence budget is a discretionary budget. It's not hooked into statutes or anything else. It belongs to the federal government and it's a pot they can go to—and that they have been going to—with promises that finding efficiencies will make up for lack of money. They do it again and again and again.

Unfortunately for Mr. MacKay, in my view, he is at the end of a game of liar's dice here: people have been passing the cup around and around and around. You can't do transformations, find efficiencies, and take money out of the budget when you've already spent all the efficiencies. Not to be too simple, it's like a family that has a lot of debts and is paying them off by selling the furniture. Well, we've been selling off the furniture for a long time, and now the bill has come in again and we don't have any more furniture to sell. There are not that many bases you can close. In 1994 they closed and reduced in size 14 bases.

**Mr. Mark Strahl:** One in my riding: Chilliwack.

**Dr. Douglas Bland:** Right. You can't cut back the forces people very much more. We've just talked about how you need to have something.

My approach to this kind of thing is to understand the purpose of the armed forces. It is a group of people set aside by society for a special purpose, and that purpose is to use force, and sometimes deadly force, lawfully at the direction of the government. You can do all kinds of things—fight forest fires, find lost kids, and help people in desperate countries—but the primary purpose of the armed forces is to build combat capability. The primary purpose of the Department of National Defence is to maintain and sustain the armed forces when they're doing their basic purpose.

If you did purposeful—that's what I call it—transformation, you would look to things that are a drag on the purpose of the armed forces. That's where you find your efficiencies.

**Mr. Mark Strahl:** Such as...?

**Dr. Douglas Bland:** Such as governments resisting adding on to the logistic slush on the snowball year after year by having the department take on new administrative responsibilities: ombudsman for the armed forces, freedom of information acts.... All of these various reactions to the Auditor General's report create more demand for staff and more demand for resources. But when you have a frozen defence budget like we've had for many years, you start plucking people out of the combat arms part of the armed forces and putting them in headquarters. As Andy Leslie's report showed, 60% of the new money that went into the armed forces in the last few years went to headquarters to handle all of these little niggly problems.

We shouldn't fool ourselves to think that so-called past transformations are anything but budget cutting. They're not transformations to purpose; they're budget money-saving connections.

The chairman is going to cut me off here.

• (1450)

**Mr. Mark Strahl:** Dr. Sokolsky, I was interested in a statement you made:

It is also evident in the recent policy and defence expenditure decisions being made by the United States that a Canadian readiness posture that recognizes the need and ability to make choices with regard to overseas capabilities and commitments will not put Ottawa at odds with the position now being taken by our major ally.

I don't have a lot of time, but I just wanted you to expand on that statement and what exactly you meant by it.

**Dr. Joel Sokolsky:** I meant that the United States is already going to have to be more selective in its overseas engagements and how it commits its forces. As with the Libyan case, where the United States contributed greatly but let their allies carry the burden, I think we already saw that the Obama administration plans both to make more use of special forces and unmanned aerial vehicles in the war on terrorism and to issue the deployment of large conventional forces. If you look at the budget decisions and the cuts that are coming, including base closures, this would be inevitable for the United States.

I'm saying that we should do what the Americans are doing. It's exactly the approach I think we should be taking—namely, that we have to be more selective in our overseas deployments—and we will not pay a price in Washington by adopting that position.

**The Chair:** Thank you.

Mr. McKay, you have the last of the seven-minute rounds.

**Hon. John McKay (Scarborough—Guildwood, Lib.):** Thank you, Chair, and thank you to all of you for your thoughts.

I want to start with Dr. Skillicorn's comment that "organization matters". Your comment was that the Brits got it right by accident—namely, that they had their signals intelligence, and their cyber-security kind of fell into the same pot, so they've carried on doing what they do. I don't know—possibly you have an opinion on this as well—how effective they are in the area of cyber-security.

On the other hand, the three gentlemen to your left have—fairly, I think—a castle model of security, namely, "These are our borders, this is what we have to protect, these are Canada's interests, and this is how we're going to go about readiness to protect those."

You then made a comment to the effect of, "We don't even know where some of the stuff comes from, we don't know who does it, and we don't know why they do it, but it just sort of appears."

The question, in the context of readiness, is should cyber-security be housed with the military?

**Dr. David Skillicorn:** Well, at the moment it is, in the rather unusual way that CSE is bolted onto the side of DND.

But I think there is a qualitative difference between physical defence of the interests in the land of Canada and the cyberworld, which does not look like that at all. There are places that are sort of in the middle ground. For example, biological terrorism has the same property, but it doesn't matter how good CBSA is, they're not going to be able to keep out anthrax that flows across the border from the south, for example. So we do need to move to a mindset that includes understanding that the defence of Canada is not entirely physically done.

**Hon. John McKay:** Is that a military mindset? Is that a military training?

We've been at RMC. We've been to the folks in Toronto. It seems to me to be kind of leading edge here. Is this a cultural antithesis to the military way of thinking? I guess that's the question I'm asking.

**Dr. David Skillicorn:** I think it's the military instinct whenever the camp is struck: just put up a perimeter. I think that illustrates the mindset—rightly so in that situation. I think they're not the only people who will struggle with this more open view of the world, but they certainly are one of the places where it's very important.

• (1455)

**Hon. John McKay:** I'd be interested in the academics' response to Dr. Skillicorn's issue, because it does strike me as a bit of a contradiction. I'd be interested in how, in effect, particularly at RMC but also in the graduate programs, you are educating our military folks, the best and the brightest, for the anticipated cyber-warfare, which is borderless. Sometimes you can't even locate where the threat is coming from.

**Dr. Michael Hennessy:** I'll talk for a second.

It's less the issue of... On the CF readiness side, there's one set of problems for the CF to handle. The wider issues of the types of defence problems that might confront the country, of course, are wider than the CF, and they are governmental affairs. In a number of instances, the government has decided to give responsibility to parts of DND or the CF so that we have the joint response unit for potential biological chemical warfare attacks. Who's going to do that? Who has national responsibility to actually do something on the ground? That falls to the CF to do.

To think about the bigger problem, it's a kind of whole-of-government issue. For instance, in 2001, before the events of September 11, in order to expand the horizons of the defence intelligence community, which is fairly large in Canada outside of DND and the CF, one of our graduate courses we created was on asymmetric threat analysis. What is considered an asymmetric threat? How do you analyze it? How do you parse out a response to it? What do you anticipate? That was as a service to the whole of government.

But some of these things don't have a ready response. There's no answer book on how to proceed. So when, over a decade ago, the government looked forward at potential cyber-threats, when we analyzed American literature that talked about "a state of war", if you can prove that some state or non-state actor attacks some asset of the government, it is in essence a state of war, but we had no adjunct in law in Canada to do that.

So who's responsible remains kind of an open question, but they created an organization called OCIPPEP, which is supposed to look at all these types of threats.

**Hon. John McKay:** OCIPPEP? What does that mean?

**Dr. Michael Hennessy:** Office of... I forget.

What was it?

**Dr. David Skillicorn:** Critical Infrastructure Protection.

**Dr. Michael Hennessy:** Critical Infrastructure Protection.

**Hon. John McKay:** And who is that when it wakes up in the morning?

**Dr. Michael Hennessy:** Well, it has now changed, because the Department of Public Safety has taken it over.

**Hon. John McKay:** Oh, okay.

**Dr. Michael Hennessy:** But at first blush when it's created and the whole of government gets together and says "look at all these emerging types of threat issues", is there a single point that is thinking about them and even putting them on the agenda? So they started with OCIPPEP. It took several years to realize that it has a function, a role, and a name, but it has no resources. So it can say that things are happening, but it can't do anything.

So the reality is that when the balloon goes up and there's a crisis, there are some elements of government that have resources. It has largely fallen to the CF to deal with crises because they have protective equipment, mobility, etc. Is it the only response or necessarily the best response...?

**Hon. John McKay:** It seems to be organization by default more than anything else, because the CF does have the resources. You have a panel at DFAIT and they don't have any money. You have a panel at CIDA and they don't have any money. You have a whole bunch of other folks and they don't have any money. But notwithstanding what General Leslie might say, the CF does have money, and—

**Dr. Michael Hennessy:** Well, and also no option to say no, largely.

**Hon. John McKay:** No; I suppose you're kind of the last resort. So instead of just sort of organizing it by default, should CF say, "Okay, we're taking the lead on cyber-warfare"? In which case, then, that is a huge mentality change for warriors, for want of a better phrase.

Dr. Sokolsky.

**Dr. Joel Sokolsky:** Actually, cyber-warfare has become important within the Canadian Forces. As I explained this morning, it's something we do with the Royal Military College in terms of preparation. We hold cooperative exercises with other units in Canada and other units in the United States, both military and civilian.

There are just some things that are the military's posture to do, and cyber-security may be one of them in cooperation with others.

When we look at the contribution in terms of homeland security, the lead agency is not necessarily DND, but you have tremendous cooperation. In the United States, the military command responsible is NORTHCOM, but it has some 60 other agencies involved in it. In what is euphemistically called "consequence management"—the detonation, for example, of a dirty weapon inside one of the two countries—militaries in both countries will have a role, as some of the only units organized with the ability to respond.

One way we can respond and are responding, as Dr. Hennessy noted, is by opening up and involving personnel from other government agencies in our courses. For example, the new national security program established at the Canadian Forces College includes representatives from other government departments and the private sector. I think the military has long recognized that the defence of the realm at the border or the projection of force is not its only goal. In the Canadian tradition, the tradition of the aid of civil power is long-standing.

For most countries, homeland defence is defence. We have an expeditionary overlay, in which we protect our borders further abroad, and that involves other activities as well. I think DND has been fairly conscious of the need to contribute in the absence of other organized forces in Canada. We have no National Guard, and most provinces don't even have provincial police forces.

• (1500)

**The Chair:** Thank you. We're going to have to cut it off there; we're way over time.

I'm going to go to a five-minute round, and I'll ask that all responses be kept fairly short so that the members who ask questions can get a response and have time for supplementals.

Mr. Norlock, you can kick us off.

**Mr. Rick Norlock (Northumberland—Quinte West, CPC):** Thank you very much, Mr. Chair.

Thank you to the witnesses for appearing this afternoon, some for a second time today.

I want to talk about Canada's foreign policy and how the military is an instrument of, shall we say, enforcing our foreign policy. I wrote down two quick areas. One is aid to those who do not have the ability to address a significant disaster—I'm dealing primarily with foreign policy, so smaller countries that don't have the ability. Another is the fight on terrorism, so support for those countries, democracies, or entities, sometimes within countries—and I'm thinking of Libya here—who advocate for democracy and human rights, and also support for our allies, whether it's NATO, NORAD, or the UN sanctions.

Mr. Hennessy, when you dealt with this subject, you said external appointments—I think you were referring to a very small, effective ability. Mr. Sokolsky said it should be consistent with those nations whose interests and values we share.

Having said that, how do you view a Canadian armed forces being able to support that foreign policy vis-à-vis the properly trained people—and specifically, the equipment to do it?

I'm referring to C-17s, the difference between Haiti and Sri Lanka, waiting to rent a commercial airline, and all that; and our ability to be a nation that can be counted on, with the right kind of equipment, to be an instrument of enforcing the standards of democracy and the protection of human rights and human life. How can we do that within a discretionary budget that is somewhat limited in scope and is complementary to our allies?

We can start with Mr. Sokolsky, and then perhaps everybody can have a shot at that, especially Mr. Bland.

**Dr. Joel Sokolsky:** We can do that by recognizing that we will not be able to respond to every situation abroad, but when we do decide to respond, what we send can be effective and make a contribution. We can recognize that while we do want countries to count on Canada, it's ultimately up to the Canadian government to make a decision as to where and when.

We have a moral obligation to protect those who can't protect themselves. I believe we also have a moral obligation to the men and women of the armed forces to make sure we send them into situations in which their lives will not be unnecessarily at risk because of a failure to properly plan or to send the right equipment.

**Mr. Rick Norlock:** Thank you.

• (1505)

**Dr. Michael Hennessy:** Part of the recognition of the real strengthening of core central strategic assets that has happened in the 15 years is important.

When Canada signed on to the R2P protocols—the responsibility to protect—some argued that there is a codicil to that: the ability to project. You need the ability to move if you're going to have influence to move resources. The strategic centre was perhaps undeveloped at the time, so we didn't have the necessary forms of heavy lift; we didn't have good secure strategic communications; we didn't necessarily have the intelligence architecture and the national command and control architecture we have now.

Those are really valuable improvements, largely invisible to big swathes of the armed forces, but I think they are enduring characteristics and something to think about, and how the centre thinks. You have an army, an air force, and a navy. There are national requirements larger than those three.

**Mr. Rick Norlock:** Thank you.

**Dr. Douglas Bland:** First, I would say that I'm not convinced that the difficulties of people in other parts of the world imposes a moral obligation on Canada to do anything.

I remember years ago listening to Lloyd Axworthy, when he was foreign minister, speaking about what became responsibility to protect and so on. He said, quite bluntly, that his foreign policy was formed by his Christian values; in other words, we would go around the world helping our brothers. "I am my brother's keeper", he said, in several speeches.

Canada has an obligation to assist in missions that have some direct relationship to our own interests, and I'm not ashamed to put it that way. Especially in the last few years, I have become more and more convinced that Canada is not an Atlantic nation, as we used to think of ourselves. We're not a peacekeeping nation, whatever that meant anyway. What we are is a western hemispheric nation, and by concentrating our efforts in the western hemisphere—in the Caribbean, and so on—there are all kinds of connections to our national interests, whether it's trade or immigrants or health and welfare and drug-related issues, and crime and so on.

The scattering of the 60,000 people in the Canadian Forces sounds like a lot of people, but at any good football game in Toronto there will be more people in the stands—if there are ever any good football games in Toronto...speaking as a kid from Winnipeg. You'll get more people in the stands at a football game than are in the Canadian armed forces.

One of the difficulties with these overseas missions to help the downtrodden is that they don't end, and you get stuck there, so it's only 15 people or 20 people or 100 people or 300 people. It's a difficulty.

One Liberal government several years ago had a great idea: the policy for deployments was going to be first in, first out. So Canada would roar in, put out the fires, get everything set up, and then leave. You'd have the third world countries, for instance, come in and do the rest of the work. Well, it's not possible. When you get in, you're in and it's very hard to get out. We've spent many years—20 years in Cyprus—trying to get out of a place where there wasn't any problem.

These are the practical considerations to make concerning your readiness and equipment when you have a very limited armed forces—a very small, specialized armed forces.

**The Chair:** Your time has expired.

Professor Skillicorn, do you have a really brief comment?

**Dr. David Skillicorn:** I'll make one quickly.

• (1510)

**The Chair:** We can do it like in question period, 30 seconds.

**Dr. David Skillicorn:** The news has broken today that Nortel was infiltrated thoroughly ten years ago and Chinese companies had access to everything that happened inside that company over a decade. That's an interesting object lesson. Before Canadian forces can be deployed anywhere, we have to know that there really are some Canadian forces. So defence has to become a very active thing, simply to stay where we are.

**The Chair:** I'll move on.

[Translation]

Ms. Moore, you have the floor.

**Ms. Christine Moore (Abitibi—Témiscamingue, NDP):** My comments will be addressed to Mr. Sokolsky.

At the end of your statement, you talked about the importance of professional military education in maintaining operational readiness. I am wondering about recruitment. We agree that education is in a way the next step after recruitment into the Canadian Forces. But in a

context of budget cuts, there is a tendency to apply these to recruitment services. For instance, in the recruitment centre in my riding, which is in a remote area, there were at the outset six positions, but three of these have been cut. The recruitment centre has become a satellite office of the Montreal centre, whereas it was independent prior to that. Currently, only one position is being filled, under the pretext that it is not a priority to fill the other two.

I'd like to know your opinion on this matter. In order to maintain operational readiness, should we not bolster the capacities of recruitment centres and their expertise, or should we continue to apply cuts there?

[English]

**Dr. Joel Sokolsky:** As may well happen, the intake of the armed forces is going to go down. That's going to put less emphasis on the need for recruitment. Also, the staffing of recruitment centres in an era in which there are going to be personnel cuts is something that's going to.... You're going to see that, since the expertise of those who are there may well be needed elsewhere. I wouldn't be surprised if in fact across the country the recruitment centres are going to see consolidation.

The downside of this is that the link between the armed forces and the communities may well decline. But I do think that recruitment, particularly in an era in which the strategic input may go down, would be one area where the government may well choose to economize.

We've gone through a period in which recruitment was up. But it's not just recruiting. Once people are recruited, they need to be trained. One wants to use the best people for training, and the best people for the last several years have been tied up in operations.

**Dr. Douglas Bland:** Mr. Chair, if I could just make a brief comment, there's a demographic problem here. It's nice rhetoric in a big meeting, but when people talk to me about recruiting and the armed forces, and so on, I ask the question, who fights for Canada? Young white men, that's who fights for Canada. The armed forces is composed mainly of young men. The disproportionate number of people in the armed forces are young white men. More than that, they're young white men from small villages—lots from the Maritimes, some from the prairies, and some from Ontario and Quebec. But 50% of the Canadian population are women. The armed forces is made up of 15% women. The aboriginal community in Canada is, according to the last census, 4%, 5%, or 6% of the population. They're less than 1% of the armed forces.

The changing nature of the Canadian demographic is going to be a problem in the future if this carries on. When you ask people the reason for this odd distribution, you get remarks such as it's racist or we're not accepting, and so on. I don't think so. I think it's a pretty damn hard life. A lot of people would like to do other things.

[Translation]

**Ms. Christine Moore:** If there are cuts currently in the recruitment area or if it is not managed as well, are we not running the risk that our operational readiness will be jeopardized in 10 or 15 years, when the people who are currently in these positions will retire?

• (1515)

[English]

**Dr. Douglas Bland:** That's absolutely the problem.

The population that we draw recruits from now is diminishing, so we're going to need some other model for recruitment. Frankly, I don't know what it is. Maybe somebody does, but I don't.

[Translation]

**Ms. Christine Moore:** I have a question I'd like you to answer briefly. We heard about cybercrime. I'd like some clarification. We are told that National Defence is dealing with that. Does CSIS play a complementary role to that of the armed forces with regard to cybercrime? That would seem logical to me. I'd like to know whether they play such a role.

My question is addressed to the person who knows the answer or has some idea of what it might be.

[English]

**The Chair:** What the member wants to know is whether there's a formal connection between CSIS and the military.

I think it's a secret.

**Dr. David Skillicorn:** I don't know exactly how these relationships work. Some of them work informally, I know. I don't think there is very much formal connection. It's partly the problem that nobody quite knows who's responsible for anything in this area, so a lot of very scattered things are going on, not all of which make sense.

**The Chair:** For interest's sake, Madame Moore is a veteran. She did serve three years with the forces.

We're now going to go to our other veteran. Mr. Chisu, you have the floor.

He is an engineer and very proud of it.

**Mr. Corneliu Chisu (Pickering—Scarborough East, CPC):** Thank you very much, Mr. Chair.

I would like to address one of the issues that I think is important, and you outlined the type of threat, Dr. Skillicorn.

What are the problems and what are the issues with the cyber-threat?

I want to inform you that a report from the European Union's Security and Defence Agenda says that several countries are very interested in preparing for cyber-attacks or potential cyber-attacks.

For example, in 2011 the Finnish government announced plans to invest heavily in developing an arsenal of cyber-defence weaponry, such as worms, malware, and viruses to protect military, government, and private enterprise networks as well as the country's critical infrastructure.

In 2007 there were attacks on Estonia, and in October 2011 there were also attacks on our own parliamentary network and government institutions.

Some of the Nordic countries are highly connected. By 2015 Finland aims to be the world leader in information security.

There are a couple of issues I would like to hear your views on, your balanced opinion.

Is the cyber-threat one of the next important threats against the armed forces? How will these cyber-threats influence deployment readiness if everybody knows where we are deploying and the information is compromised?

• (1520)

**Dr. David Skillicorn:** The problem fundamentally is that so much of what we do in every way is computer-mediated. On the Internet itself it's one gigantic connected system, which was never designed to be world scale, and therefore you can get from one place to any other place and more or less do what you want with not terribly much sophistication, as such things go.

Militaries, in general, have tried to deal with that problem by air-gapping their network from the public network, and that works up to a point. But as several countries have discovered, devices such as USB keys and so on make it relatively easy to cross that air gap, and therefore military networks are not quite as separate as they are often thought of. Organizations in the intelligence world tend to be even more separate and to impose physical constraints on what you can carry across the boundary.

The threat, I guess, is things like having fighter jets show up for mid-air refuelling when the refuellers aren't there because they were told to go somewhere else, and that was done by corrupting some message somewhere inside some system. That kind of idea can be generalized in many different ways.

The trouble is that we build on an infrastructure that was never designed to be secure. Security is an incredibly difficult property to retrofit into any system, but especially computer systems, which are among the most complex things that humans have built.

**Mr. Corneliu Chisu:** However, the report also says that Canada has interesting expertise, but those capabilities are not reflected in the government. This is Rafal Rohozinski, who runs the SecDev Group.

What do you think about this issue that Mr. Rohozinski is telling us about?

**Dr. David Skillicorn:** There are things that can be done, but there is no magic bullet, and therefore it's a case of hardening rather than solving this problem. The trouble with that is it's the weakest link that gets you every time, and it's very hard in advance to decide from what direction you might be attacked.

Although lots of countries are aware of the problem and they're trying to do something about it, not much optimism is really out there.

**Mr. Corneliu Chisu:** Turning to another question, if I have time, I would like to ask the panel, what are some lessons learned from the recent operations? What did the Canadian Forces learn from Afghanistan, from the torment in Haiti, and in their domestic operations? What are the lessons learned for future consideration?

**Dr. Michael Hennessy:** I'll jump into the fray.

For years in NATO discussions there was debate over what collective balanced forces meant, and NATO policy had been for years that every nation's responsible for ensuring they have a collective balanced force. Every country kind of iterates how they answer that question differently.

For many years Canada's response was largely we will provide what we provide and fit into a bunch of other resources that others have. I think the operational experience of 15 years is that we need a much more robust internally complete force structure so that we have the command and control, we have much of the intelligence, we have the very esoteric human intelligence types of resources that in the 1960s and 1970s we could rely on other parts of NATO to provide. We need those domestically.

**The Chair:** Very briefly.

**Dr. Joel Sokolsky:** I think it indicates we need to have the capabilities to do the job on the ground. It indicates that not all allies will be as committed to the mission as we are, and we have to be careful about that. It indicates that these sorts of conflicts undertaken for the best of reasons can be ambiguous in their moral and strategic outcome, and it indicates that while the public very much supports the armed forces, it may not continue to support the mission.

**The Chair:** Time has expired.

Mr. Kellway.

**Dr. Douglas Bland:** Is there time for a response?

**The Chair:** Only if you can be very concise.

**Dr. Douglas Bland:** That's always difficult for me.

What we're being forced into is a situation where defence capabilities are falling, the amount of capability you get for a dollar is falling, and some governments eventually are going to have to make a choice whether we're going to be a worldwide nation, we're going to be a continental nation, or we're going to be perhaps an army or a navy or an air force, but not all of them.

**The Chair:** Mr. Kellway, now you have the floor.

• (1525)

**Mr. Matthew Kellway (Beaches—East York, NDP):** Thank you, Mr. Chair.

Thank you to our witnesses. Your contribution this afternoon has been, from my perspective, extremely welcome.

Even though they're kind of complicated issues, you have introduced what appears to be a very simple concept of discretion. There is discretion over what we do and how we deploy externally. Dr. Sokolsky, your notion of how far we project our borders is kind of an interesting metaphor for exercising that discretion.

Dr. Sokolsky and Dr. Hennessy, you seem to be saying that agility is a key characteristic of what our forces need going forward. I'm particularly interested in equipment, because my particular critic area is military procurement. What do agile Canadian Forces look like, going forward, in terms of equipment? Maybe the question, as Dr. Bland said, is whether we have an army, a navy, and an air force all at the same time or just one or two of those elements.

Let me open that up to you, please.

**Dr. Joel Sokolsky:** What do they look like?

We are going to have a naval capability that is able to operate in home waters and overseas. We're going to have to have some sort of high-seas capability, although the contribution of maritime power in certain areas may well be limited. But it's unlikely that we will need that, because it's something we need at home. As I mentioned, we don't have an armed coast guard and navy.

We need a minimal capability to provide air sovereignty protection for Canada and to contribute to NORAD. Although air defence isn't as important as it once was, we're unlikely to abandon modern jet fighters, and we probably want to retain a capability to use them overseas.

We'll need small-combat capability. We can only have a small one overseas, but we'll need the ability to send professional armed forces to various missions overseas when it's in our interest.

I'm not generally an optimistic person, but in fact we're going to have an army, a navy, and an air force. And they will not be simply continental. No matter how low we go, it will never be an exclusively continental or domestic force, because frankly there's not enough business domestically or on the continent for the military. The security of North America, homeland security, is largely in the hands of civilian agencies.

We will not have an amphibious capability. We've gotten on fairly well without an aircraft carrier. Most countries do. Our strategic lift has actually improved since the acquisition of the C-17s. If anyone thought we would have been able to acquire this capability so quickly before, they might have been mistaken.

I think we will maintain a broad capability. Can we sustain it in long struggles overseas? Probably not.

Again, I'm not a generally optimistic or happy person. But before whose capabilities need we be embarrassed? Where is the other country around the world, of a similar size, that has done more in the last 15 years than we have? A lot of the time we've asked a lot of the armed forces. We didn't give them enough. But frankly, I'm a little tired of having to apologize for what Canada does around the world, because when I look out, few have done as well. Perhaps it's the Snoopy approach: Canada is not much of a dog, but then again, who is?

As I suggested in my testimony, people are not going to step up and fill any void that America creates. The Europeans can barely afford to run their own countries. They're not going to be able to afford a major defence expenditure. We should not be lulled by the siren's call that others expect it of us. We can expect of others, too. I think we should.

We're going to have a smaller armed forces. It's going to be highly professional. It's going to be capable. The great danger is not in not going somewhere; it's going somewhere where we can't do the job. In your family life, if you can't afford to do it, you don't do it, particularly if it's a dangerous thing to do.

I think we'll have a broad capability. We have a good shipbuilding program coming on. We have obligations in the Arctic. We're engaging there. We will simply maintain that capability.

Fortunately, because I think we have to choose, we will be secure.

• (1530)

**Dr. Michael Hennessy:** I know I have to keep this short.

**The Chair:** You're already out of time.

**Dr. Michael Hennessy:** Okay, that's about as short as I can go.

The problem for our forces deploying overseas is they tend to have a very simple mission set. They have to be able to shoot, to move, communicate, and protect themselves, and those are all very situational, depending on what they're thrust into.

The experience of the past 15 years is that we don't want to return to having overseas deployed officers with no ammunition for their weapons. We had a general officer meet the second UN deployment to Somalia on the ground at the airport, in shorts, sandals, and with an unloaded weapon, while we sent in combat troops because the state wasn't prepared to fully support what he was doing. We don't want to return to that.

**The Chair:** Thank you.

To move on, we have Mr. Alexander.

**Mr. Chris Alexander (Ajax—Pickering, CPC):** Thank you.

I just want to clarify the percentage of expenditure on GDP. My calculations—correct me if I'm wrong—are that today we're somewhere around 1.25%, with \$21 billion or \$22 billion of spending on \$1.7 trillion of GDP. But that's nominal numbers. I know there are different ways of analyzing it. If you take a purchasing power parity version of our GDP, it's higher and has risen more over 2003-04.

But that wasn't my main point. I just want, for the record, to say we're spending more than 1% of GDP on national defence.

**An hon. member:** [*Inaudible—Editor*]

**Mr. Chris Alexander:** And, yes, we're all awaiting what will happen next month. I'm grateful for your speculative comments in that regard. It will be in the budget, and no one and no other forum will accurately predict what will be there.

My question, though, is about readiness for the future. I was fascinated by all of your comments, but I have a really simple question. Given that many of our allies are slashing their defence budgets and their capabilities—"transforming" is one way of putting it, but really, in absolute and relative terms they're going down—are there going to be more demands upon us away from our borders in expeditionary mode, the same, or fewer?

Of course this depends on your analysis of threats facing the world and what our national interests are, but give me your unvarnished opinion in that regard.

I'd like to start with Dr. Sokolsky. I think he addressed this most directly, but I wasn't quite sure where he was coming down on it.

**Dr. Joel Sokolsky:** I can anticipate more situations in which international organizations or our allies will cast about looking for assistance in the coming years and that Canada may receive further requests for these things. As I'm suggesting, we're going to have to ration that.

I believe that may well be the case, but as you know, what goes into a decision to say yes is who else is going, what they're sending, and what priority it is in Washington and London and Berlin, with a glance towards the domestic situation and hopefully on the advice of the Chief of the Defence Staff. Nobody deploys overseas for one reason alone, and it may be somewhat playing out before us if there's any movement toward any deployment into Syria.

It's who is going, who is supporting, and what they're sending. All I'm saying is that just like any other country, we make the decision based on our own calculation and interests with regard to the obligation we owe the men and women of the armed forces.

• (1535)

**Mr. Chris Alexander:** Great. I want to hear from Mr. Bland on this, but let me get in one more question. This is for Dr. Skillicorn, and a few of you can comment very briefly.

Yours is the first testimony we've heard where it points very clearly towards a signals intelligence organization as the natural home for cyber-security. That will be debated in our committee and elsewhere, but tell us a bit more about why you think GCHQ has it right and what proof there is of that. I heard the statement, and I've actually heard it from others, but I haven't heard it argued for in a very—

**Dr. David Skillicorn:** Obviously the work they do is classified, so we can't say very much about it here.

I think in the post-Second World War period, signals intelligence was largely about satellite dishes and satellites and stuff like that. But since, I guess, the early seventies perhaps signals intelligence has been much more about computer networks and interception on computer networks. The skill set that's required to do that kind of interception doesn't look very different in the end from the skill set being used by people to develop malware and intrude on civilian systems to do bad things or criminal things or commercial things. I think it's that synthesis that has paid off for them.

**Mr. Chris Alexander:** How has it paid off?

**Dr. David Skillicorn:** The people they have with expertise in one of those fields automatically have the expertise in the other fields. So when cyber-intrusion started to become a problem, not only did they understand exactly what was happening at a technical level, but they had probably already done it themselves, and therefore they were very much aware of what it would look like and what was possible and what was not.

I think that's the payoff: Those two things overlap technically to such a great extent that you get almost double the bang for every idea or expenditure or person that you put in that space.

**Dr. Douglas Bland:** I'll just tidy up a few things.

GDP as a measure of defence is not a very useful measure. What it does is suggest to people what the national effort will be. It's a measure of national effort. Out of 100% of our GDP, the effort we're willing to put forward is less than 2%. That's all it means. It doesn't mean anything more or less than that, because the 2% that we put out might be a hell of a lot better than 10% put out by somebody else.

As for cyber-warfare and so on, the Canadian armed forces have been involved in electronic warfare since early in the Second World War. On the base, here at the communications school, and in units, there is a Canadian electronic warfare unit. They go everywhere the Canadian Forces go. It's not necessarily cyber, but sometimes it is. Listening to the other guy talk about what he's going to do tomorrow is always a good thing if you're a military commander, and that's what they do—they listen to people, and they've been doing it for a long time.

So joining the military and cyber into some sort of new government department might be a good idea, but you're still going to have an electronic warfare component in the Canadian Forces. You're going to have to, because you can't operate without it.

We talk a lot about—and we talked about it here—threats to Canada from different things, cyber and who knows what. I try not to let my students talk about threats to Canada—and some of them are sitting behind me, or at least they were. It's not a very good measure when you're trying to write national security policy or national defence policy.

What you need to worry about is vulnerability. The world is full of threats. Everybody's a threat. There are all kinds of threats. You can't address them all, so you need to separate out threats from vulnerabilities. What are we vulnerable to? For a quick example, the Japanese economy is vulnerable to a shut-off of oil and gas. We're not. So we need to think about separating threats from vulnerabilities, and then you act to mitigate vulnerabilities, not to shut down all the threats.

As to where we're going to go and what we're going to do in the future, we will be able to do less with less, first of all. Second, we've learned to be perhaps more discreet about where we're going to go and where we're going to send people. Don't forget, Canada doesn't go to war in these places; Canadian soldiers go to war in these places. So if I may say so, it's your responsibility to make sure, as Joel Sokolsky has said, that they're properly equipped and properly supported. And sometimes politicians will say “Sorry, we can't go, period”.

● (1540)

**The Chair:** Thank you.

Monsieur Brahmi.

[*Translation*]

**Mr. Tarik Brahmi (Saint-Jean, NDP):** Thank you, Mr. Chair.

My questions are mainly for Professor Bland and to a lesser extent, Professor Skillicorn, and have to do with cybersecurity.

I tend to share your opinion with regard to one of the aspects you mentioned. I think that for a number of years now the Canadian Forces resources have been reduced, while the scope of their missions has been increased.

I rather agree with you when you say that the percentage of the gross domestic product or the gross national product does not really make sense. We can look to the United States for an example, where the United States Coast Guard has a very different responsibility that is not really taken into account in the expenditures of the armed forces.

We can also take search and rescue as an example. In some countries, that responsibility has clearly been assigned to the Department of the Interior or to civil defence authorities. Moreover, certain countries consider that emergency humanitarian aid is part of foreign affairs and not the responsibility of the armed forces.

Am I right to think that we have a tendency to add...? For instance, cybersecurity is a new responsibility for the armed forces. Is there not a tendency to reduce the resources of the armed forces, while increasing their responsibilities, over time?

[*English*]

**Dr. Douglas Bland:** I'm not sure—maybe I'm out of date—that cyber-defence is a Canadian Forces responsibility. Again, we need to get our definitions straight. There's a thing called national defence policy. There's another thing called national security policy. That's where there is a crossover. I don't think we have an adequately defined national security policy. Someone mentioned that a critical infrastructure report was just done at Queen's called “Canada's Critical Infrastructure”. The point is, we don't have any critical infrastructure policy in this country. There are a lot of bureaucrats, but no policy.

As far as the kinds of missions you load on to the armed forces, a favourite complaint of the armed forces is that search and rescue is not a military job. It just happens to be a military job by tradition or from habit. I was in a meeting with general officers and a defence minister, who I won't name, and the general said to the defence minister, “We want to get rid of search and rescue, go give it to Transport Canada or somebody”. And he said to them, “Fellows, the money all comes out of one pot as far as the government is concerned. We're going to have to pay for search and rescue, so we'll give the money to Transport Canada, and we'll take it away from you.” The general said, “Wait a minute, that wasn't what we're talking about. We were talking about keeping the money and your giving the job to somebody else.” Well, the world doesn't work like that, and Canadian governments don't work like that.

**Dr. David Skillicorn:** I think it's instructive to look at the history of intelligence. The British Security Service and the British Security Intelligence Service are still widely known as MI-5 and MI-6 because of their origins in military intelligence. With new, difficult-to-understand technologies and the resulting activities, it's often very helpful to do them within a military context first, because everything is much cleaner. It's better delineated. You have better command and control than trying to develop it in the civilian circumstance. It might move out into the civilian situation, but what I see in most western governments is a lot of thrashing around trying to decide where this piece of the puzzle should live. At the moment, it seems to me to be an easy solution, or at least a straightforward solution.

● (1545)

[*Translation*]

**Mr. Tarik Brahmi:** I'd like to put another question to Professor Bland.

You stated that we are supposed to intervene within the framework of NATO. However, the ordinary citizen notes certain things with regard to recent NATO interventions. There are 27, 28 or 29 NATO member countries; I don't remember the exact figure. In the case of Libya, for instance, only three or four of these member countries intervened.

How does this unbalance the role of the Canadian army? After all, these interventions are supposed to take place within the NATO framework.

[English]

**Dr. Douglas Bland:** Yes. It's an important impediment to rallying Canadian support for so-called NATO missions, and so on, when the other guys refuse to play completely in the program. It's an alliance problem. This stems from—not to lecture too much—article 5 of the treaty that people half-quote a lot of times. People think the article is "one for all and all for one", except the second part says that nations can join in as they think is appropriate for themselves.

The complaints that nations went to Afghanistan and didn't take part in that part of the mission—they dropped out of those kinds of things—is completely consistent with the North Atlantic Treaty. Ironically, for Americans who complain about this problem, it was the Americans who put that caveat into the treaty when it was written. The United States Congress would not sign any treaty that obligated the United States to take part in military actions that Congress hadn't approved. So the only way to get the Washington treaty signed in 1949 was to put in article 5 with big caveats that said "all for one and one for all, most of the time maybe". So that's where it is.

We just have to live with that, or we take on commitments, or we go into operations as we did in former Yugoslavia and bomb people without NATO or the UN, and just take on the missions anyway. At the end of the day political leaders in Canada, the United States, and everywhere else will decide whether it's in the national interest to get involved in an armed conflict someplace, no matter whether the UN or NATO are interested. It's about whether we're interested. I think that's how we will form our policy.

**The Chair:** Merci.

Before we go to our third and final round, I want to ask Dr. Bland a question.

In your opening comments you made a fairly significant assumption about the deficit reduction action plan and the size of cuts you're expecting in the upcoming budget from National Defence. You painted such a gloom-and-doom picture. What percentage of cuts are you anticipating or did you base your remarks on?

**Dr. Douglas Bland:** Mostly, it's at least going to be 5% and probably 10%. We don't know, but that's what's being batted around. Officials I've talked to obviously don't talk about what's going to happen, and maybe they don't know, but that's where their minds are lurking, so to speak.

You have to understand, and perhaps do, that 50% of the defence budget goes to wages for military people and for public servants; 20% more goes to the capital program to buy stuff for the future force—ships, airplanes, and all that procurement stuff. Unless you're

going to cut a whole bunch of people, and that's what we've done in big wallops over the years since 1962—you save money by cutting people—if you're going to cut 10% out of the budget, you're going to have to take it out of operations and maintenance, which is about \$4 billion. Do you think you can find \$2 billion of cuts out of \$4 billion? I don't think so.

If it's a high percentage, there will be significant difficulties reaching those objectives without taking people out of the thing. I have a paper here, written by someone else looking at Andy Leslie's work, that speaks about "personnel reinvestment potential", which is a nice bureaucratic way of putting things. In other words, these are people you can throw over the side. In the forces and in the department, the number comes out to 10,400 people who are now, according to Andy Leslie's report, perhaps redundant to the system. That's why I say the big cuts are going to go to the reserves—4,000 people, maybe, or something like that. There's no other way to make the cuts than to go into big numbers.

The point is, when they say they're going to "reset"—everybody has to use football terms in the military these days—the Canada First defence strategy, it means that we're going to keep the objectives, but we're not going to do them this year; we're going to do them next year. It's the way I do repairs on the cottage: "Next year I'll take care of that part." You keep pushing things off into the future, when you'll have more money. We've been doing that year after year after year: we'll keep the program and we'll get the money next year when there's more money. Do you know what? Next year there isn't any more money, and then you start again.

That's my overly pessimistic view, Chair, of the position we're heading into.

• (1550)

**The Chair:** I'll take it in that context, as overly pessimistic, and hope for the best.

Comments were made also during today's testimony about resetting our foreign policy: rather than having our borders pushed out to some place over in Europe or Asia or even Africa, possibly having a western-hemispherical concept of what we do as a nation with our armed forces.

I wonder whether that's the way we wish to proceed in the future, from the standpoint of military readiness: working with our allies or our neighbours in the western hemisphere.

What do you see our forces looking like? Is it going to be still army, navy, air force, or is it going to be something different? Equipment needs change significantly.

Dr. Sokolsky.

**Dr. Joel Sokolsky:** Mr. Chairman, I apologize if I gave the impression that I was looking for a hemispheric.... I think we were making—

**The Chair:** Dr. Bland definitely made that comment, but I know that you were also saying to change where the borders—

**Dr. Joel Sokolsky:** No, I think we will maintain a global foreign policy; we'll perhaps just be more discreet in where we go. I've personally never been attracted to a western-hemispheric approach. You'd have to ask yourself what's in it for the other nations of the hemisphere. What do we bring? We're already doing quite a bit. We're doing counter-narcotics. Is that something we want to do more of? Brazil seems to be a rising power.

But I believe we will maintain a global horizon, rather than just a hemispheric one, given the nature of our trade.

**The Chair:** But Doctor, you did talk about Canada. We have no apologies to make for the load we've carried at the international level.

**Dr. Joel Sokolsky:** That's correct.

**The Chair:** Some of our NATO allies we can criticize for not doing enough. What do you anticipate is our role within NATO or in NATO's future?

**Dr. Joel Sokolsky:** NATO's flexible response is not just NATO's strategy—it is its whole life. It's able to cope with things, and unless there is some major crisis that breaks up the alliance it will continue to do certain things. It may well be involved in other activities.

There is no reason for us to push NATO contradictions to their logical conclusions. It will always be a contradictory organization. As long as it doesn't cost us a lot to stay in and have a seat at the table, there's no reason why we can't continue. Some of the nations we're able to work with on an ad hoc basis. We will also be interested in the Pacific, but the scope there may well be limited by resources.

Looking to the future, the main thing is our trade. Trade has to follow our security pulse. Does the fact that we trade more with China and others mean a greater security engagement? You can have a lot of trade without security leaks. I believe Canada has basically followed a realist foreign policy. In a sense, we've been closet realists. We don't always express it, but we always do it.

• (1555)

**The Chair:** Dr. Bland, do you want to follow up?

**Dr. Douglas Bland:** You open up academics to argue with each other, but my friend Joel asked what was in it for Latin Americans if Canada were to take a greater role. I could ask the same question about east Europeans and others if Canada were to take a greater role in NATO.

To answer the first question, I have experience with Latin Americans and have worked with the Center for Hemispheric Defense Studies in Washington over the last number of years. What's in it for Latin Americans if Canada is involved? We're not the United States. It's very big on their agenda that they have somebody to talk to who is not the United States, and they will say that to you all the time. They want to be allied with us. The Mexicans do too. Don't forget, we have a war going on just across the American border. Some 20,000 people have been killed in the last few years, drug runners and others. There are all sorts of problems. Latin Americans would like Canada to be involved in the discussions in international organizations that affect them.

**The Chair:** Thank you.

Since we're not in a real big rush, we'll do the third round. Gentlemen, I ask that you keep your responses to the point.

Mr. Christopherson.

**Mr. David Christopherson:** Thank you, Chair, and my thanks to our witnesses. This has been very engaging and very helpful.

I have a macro question. General Leslie's report has been referred to a couple of times today. It's not a primary focus of our studies, but we can't escape the fact that it touches on issues of transition. It's difficult for us to be looking at readiness without coming to some kind of conclusion vis-à-vis General Leslie's report.

I would throw it open to any of you who would like to comment on the report, its relevancy to our work, and how much of it we should take to heart and include in our findings. Or perhaps you think it has the wrong focus and you would suggest that we look 180 degrees in the opposite direction. I would open it up to any witnesses who would like to comment.

**Dr. Douglas Bland:** I have read the report and talked to Andy Leslie. I have known him for a long time. He was given a mission by the minister to think outside the box, as people like to say these days, and he did that. He came up with a number of models for reorganizing the defence establishment, and that's where these cuts that could be made here and there and everywhere come from. He had a large team of military and civilian personnel. The civil servants were withdrawn from his team halfway through the project. But it was a good team.

**Mr. David Christopherson:** Sorry. They withdrew...?

**Dr. Douglas Bland:** About halfway through the project, as I understand it, the deputy minister of the Department of National Defence decided that his part of the team would leave the process and General Leslie carried on with the remainder of the military team.

So it's not surprising in these kinds of things, when you start to suggest big complicated changes to complex organizations, that there's going to be strife. There has to be strife.

The thing that is interesting to me is this assessment of the state of the defence establishment, the armed forces and the department. They're two separate organizations in law. They're not joined in any way except in carrying out policies. This study should have been done before we went to Afghanistan or right as we were going into Afghanistan. The Canadian Forces and the headquarters were not prepared to go to war. That's why General Hillier started making his transformation, so he could get the armed forces ready to go to war, but what happened as the war continued, in the civil side especially, was the sense that it was business as usual and we'd just patch on more staff and more people to take care of this inconvenience of the war in Afghanistan.

I toy with the idea that it would have been interesting and we would have had a purposeful transformation of the Canadian Forces and the department and maybe lots of other parts of the government, if in 2003, 2004, or 2005, the government—whichever government happened to be around at that time—had said to the Minister of National Defence, “You’re going to war, you’re going to take on this business, and you’re not getting any more resources. So go around your own department and go find them. Go find the efficiencies and use those efficiencies to carry on the war.”

But that’s not what we did. As I said, they said, okay, we’re going to war, and then grudgingly, incrementally, reluctantly, people started patching on a little bit of this, and we changed an idea and we’re going to have the whole government concept...we’ll patch on another piece and so on.

So you end up now with this large organization that is now going to be scaled back, but we hadn’t done the transformation, not for fighting the kinds of wars some anticipate we’re going to be in. So we haven’t applied the lessons of the operation to what we’re doing.

• (1600)

**The Chair:** Thank you.

Mr. McKay.

**Hon. John McKay:** I wanted to carry on this fantasism versus realism question. Professor Bland says that one of the air force, navy, or army has to go, and Professor Sokolsky says no. Professor Sokolsky says somehow or other, in some way, we’re going to have a global presence throughout, and Professor Bland says not global, maybe not even hemispheric, and possibly mostly continental. You rightly say that less is going to have to happen with less. We are going to have to just sort of...

In some respects the argument is founded upon what Canada’s interests are. If I look at my riding, I see there’s virtually no conflict anywhere in the world that doesn’t affect my riding. You name it, and there’s a diaspora community that’s represented in my riding. So if I’m projecting, looking forward, I’m seeing more call upon all of Canada’s interests, all of Canada’s abilities, as it projects itself into the world in various fashions, not entirely military but certainly rooted in military capability.

So I’m not sure. I certainly don’t think I agree with Professor Bland. On the other hand, he does make a pretty significant point about what Canada’s interests are. So I’d be interested in the dialogue between that side of the table and this side of the table as to how that circle is going to get squared.

**Dr. Joel Sokolsky:** Many issues around the world affect people in Canada. The issue before the committee is to what extent do the armed forces need to be prepared to meet them, and to what extent generally are the armed forces the proper instrument in policy?

Let’s say we have narcotics as a problem. What do we do? From time to time we send a ship into the Caribbean. Can we afford it? Yes, it’s just one ship. We keep it on station for a while, and then we withdraw it. When we withdraw it, does that mean we are no longer interested in it? No; it means we can’t maintain it. Counter-terrorism is a threat to Canada. What do we do? We’re in Afghanistan, but from time to time we rotate a ship into the Mediterranean. Can we afford it? Yes. Are we going to put five ships in the Mediterranean?

No, because it’s not that important. Somebody messes with our fishing? We’ll put five ships out there because that’s immediate.

You’re right, these are shades of grey here. When I say we’ll maintain a global presence, it may mean military-to-military contacts. We have been participating in the RIMPAC exercises across the Pacific for years. Does that mean we’re a major player in Pacific security? No, but we’ve expressed our interest.

That’s where I think we’ll retain it. If we have to go ashore on a more concerted operation, that’s more of a risk. As far as the hemispheric, I’ll just come back to Doug’s point. The Mexicans would like us to become more involved and they feel uncomfortable with the Americans. Unfortunately, we do feel comfortable with the Americans. The last thing we need is for Washington to look around and say Canada is joining the others because they feel uncomfortable with us. Our main trade is with the United States. Our main cooperation is there. There are problems on the U.S.-Mexican border. That’s something we should completely stay away from.

• (1605)

**Hon. John McKay:** Amen, brother.

**Dr. Joel Sokolsky:** We have no interest in it. It’s apart from immigration. When it comes to homeland security—I’ll be as blunt as Doug has been on other things—the last thing we want is for the United States to equate Canada with Mexico when it comes to homeland security.

**The Chair:** Thank you.

We’re going to move on. Mr. Norlock, you have the last question.

**Mr. Rick Norlock:** Thank you very much. I thought I wouldn’t be as frustrated as I am. I have two gloom-and-doomers on the left, and two sort of positive guys on the right.

Mr. Bland, when you say 50% for wages and benefits, I come from one of Canada’s largest police forces, and about 90% of the budget is salaries and benefits, so 50% is not too bad.

Mr. Sokolsky, I guess I’m not a very technologically apt person; as a matter of fact, I am very comfortable with pen and paper. I guess it’s frustration. It’s not anger, it’s just frustration. Yesterday and today we had somebody come talk about cyberspace to us, and tell us everything that’s wrong with what we are doing, but offered absolutely no solution, or very little in the way of solution. I’m just going to ask you to confirm this or not, sir. Is it because it’s so new that we really don’t know what we need to do? Or is there a best practice?

I'm a practical person, so I always look for somebody who has solved something better for me. The way I look at our military situation is the way we look at our financial situation. The world is shrinking every day. If somebody farts in the Middle East, our stock markets go wacky, and people say we better send a jet over. There's civil disobedience in some far-off country that hardly anybody knows about, and all of a sudden our sabres get rattling and the stock markets go this way.

It is a small world. I agree with Dr. Sokolsky: we're going to be engaged whether we like it or not. Or we can be shrinking violets and just sell a whole lot of stuff to the world and become very affluent. I don't see us being that. Canada has a history of always punching above its weight. When something needs to be done, we do it.

Mr. Skillicorn, is there a best practice? Do you have any solutions to our cyberspace issues that threaten our security?

**Dr. David Skillicorn:** Here's how we got into this position. The Internet was designed to work within government laboratories in the U.S. of the size of about ten; it now connects 12 billion computers, and it's rapidly climbing, with essentially the same technology. Nothing has changed. It was never designed for security and security isn't really workable.

The bottom line is an economic one. You can buy a PC; you can put Windows on it for a couple of hundred dollars. If you wanted that to be a secure piece of software with a secure network, you'd be looking at \$50,000, and that's why we live with the software quality that we do. It's a long history of economic choices, all of which at the time seemed reasonable, but which have got us to a place that's very hard to get out of.

**Mr. Rick Norlock:** Mr. Bland, have a good shot at me now.

● (1610)

**Dr. Douglas Bland:** Perhaps you want to hire some officials from the defence department to talk to your people in the police department. It's a complex problem, but it's not unusual to police or to business people. People cost a lot of money.

We've done studies and we referred to the contest between the present force and the future force—the armed force, obviously. The present force is what you see now, the men and women in the armed forces, the equipment they have, and so on. The future force is the people who are coming into the forces, the equipment we're going to have five, ten, fifteen years from now—the ships and so on. That's all the future force, and there's always a competition between the present force and the future force over money.

Sometimes in our history—not too long ago—the present force was consuming all the budget. The capital account was 8% of the budget, and in those years, the Chrétien years and before Jean Chrétien, the capabilities of the armed forces were going down, down, down.

**Mr. Rick Norlock:** What do you say to a person from private enterprise who looks at government as a whole...? I got this in my budget consultations over the past couple of years. In the real world, they're into the lean part. It's a manufacturing process called lean. When I was a police officer, it was called doing more with less, and

job enhancement was meaning you will have more work because there are fewer people to do it.

Can the armed forces operate under a lean-type of operation? In other words, instead of at five o'clock everybody is clogging the roads—8 Wing is in my riding—maybe people have to spend a little longer at work in order to secure their job or be more efficient. Or maybe we need to put some more job enhancement there.

**Dr. Douglas Bland:** Not to be overly dramatic, but when somebody's shooting at you, you don't want to be in an organization that does more with less. In military operations—flying airplanes through the dark, and sailing ships in the Arctic, at sea and so on—the tendency is to try to have as much capability as you possibly can. One of the old rules of ground warfare tactics is you fight the other guy. You find out if he has a thousand guys, so you take five thousand. You might not need them all, but you don't want to get into a fight with somebody a thousand against a thousand, because you're in real trouble.

So regarding the sense of what is efficient in a military organization, the concept is different from what's just enough, which is a measure of efficiency perhaps in business and so on. So that kind of thought process influences organization, direction, numbers of people, and so on and so forth. We always have to keep that in the back of our mind.

**The Chair:** Thank you. Time has expired.

Gentlemen, I definitely want to thank you for taking time out of your schedules to be with us today, for your very frank comments about readiness and the future of the Canadian Forces. Professor Skillicorn, Professor Bland, Professor Hennessy, Dr. Sokolsky, thank you for coming.

Before I adjourn, when we are travelling I like to offer an opportunity to people in the crowd, if there's anyone who wishes to make a brief comment.

I'm going to invite retired General Glenn Nordick. There is an empty mike over here. A couple of brief comments would be welcome.

**BGen Glenn Nordick (As an Individual):** I did not intend to come today to make a comment, but I've been listening to the discussion today and it has been enlightening and interesting.

I would suggest, as a former member of CSE and director general military SIGINT, that before any concrete decisions are taken in terms of the cyber-security piece, there is an understanding that the Government of Canada needs cyber-security, and it needs a single cyber-security, because what we've had to this point is that everyone has been trying to protect their own infrastructure. One of the things that's critical here is that it's not just protecting the infrastructure, but the information that's in it. And the desire, in some instances and at critical times, is to take down the infrastructure. That's what needs to be protected.

CSE is a bolt-on to National Defence, but it's a bolt-on that has its own legislation, its own reporting authorities, and its own methodology. You can't look only at CSE and say okay, it's the Canadian Forces that are responsible for cyber-security. It is an entity that—to look at Dr. Skillicorn's point—is both social scientists and engineers. It has a broad spectrum of capability in there, which I would strongly suggest you might want to have a look at before we make any decisions about where we are in this space.

As heavily involved as I was in the Afghanistan mission, I would say that the Canadian Forces, during the period of Afghanistan, have demonstrated that, one, we did a major transformation, mainly in our command and control structures and the way we do business inside the National Defence Headquarters, and also that the Canada defence policy works and an all-of-government approach for that mission was successful.

Things like the defence intelligence review were validated during that mission. We built up some very, very critical niche capabilities that our allies want when we go offshore. We built up general-purpose capability and experience in war-fighting that is critical.

Some of those capabilities are very easy to dismember. They need to be looked at to make sure of what it is that the Government of Canada wants in that space, because we don't want to be sent on missions where there's no hope of success. That's the key.

As one of the richest nations in the world, I think it's unconscionable that we would at any point look at this and say, as a member of the United Nations, a member of NATO, and a member of the various alliances, that we're not going to be involved in incidents around the world, since we're signatories to the UN, we're signatories to responsibility to protect, and we champion human rights around the world. We are going to be involved in international operations, so the capability of the Canadian Forces to meet those operations is essential, whatever size the government decides it is to be.

Thank you, sir.

●(1615)

**The Chair:** Thank you so much for those comments.

A final comment, Dr. Bland.

**Dr. Douglas Bland:** I'll do an advertisement. Late last year, colleagues at my centre produced this little booklet called *Let Sleeping Dogs Lie*. It's a study of 15 reports of committees of the House, committees of the Senate, academia, and non-governmental organizations on national defence issues. We went to sources for access to information and received 3,500 pages of responses to these studies, responses from inside National Defence Headquarters.

I think you will find this an interesting read. It has some hints about how you can avoid what happens to everybody else's study when they send it in to National Defence Headquarters.

**Voices:** Oh, oh!

**Dr. Douglas Bland:** I will leave this with—

**The Chair:** You can leave a copy with the clerk.

**Dr. Douglas Bland:** I'll leave it with the clerk. There's a website where you can download it...or you can't download it, but you can read the whole report. That's my offering to democracy this afternoon.

**The Chair:** Thank you so much.

I do appreciate all of the work you do as academics in studying defence strategies, looking at security risks, and training our next generation from the standpoint of both the civilian population and the future officers. It is something we do appreciate. For those of you who have military backgrounds, we appreciate your service to Canada.

With that, I'll entertain a motion to adjourn.

**An hon. member:** So moved.

**The Chair:** We're out of here.

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