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Chair

The Honourable Kevin Sorenson

Standing Committee on Public Accounts

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● (1530)

[*English*]

The Chair (Hon. Kevin Sorenson (Battle River—Crowfoot, CPC)): Good afternoon, everyone. This is meeting number 33 of the Standing Committee on Public Accounts, on Monday, May 1, 2017.

I remind everyone today that we are televised, so I would encourage all members and all those in the audience to please put your phones, your communication devices, on airplane mode or mute. That would be much appreciated.

Today we're conducting a hearing on report number seven of the Auditor General, "Operating and Maintenance Support for Military Equipment—National Defence", from the fall 2016 reports of the Auditor General of Canada.

Appearing as witnesses today, we have Mr. Michael Ferguson, Auditor General of Canada; and Gordon Stock, principal. Welcome.

From the Department of National Defence, we welcome back Mr. John Forster, deputy minister; Vice-Admiral Ron Lloyd, acting vice chief of the defence staff and commander of the Royal Canadian Navy; Mr. Patrick Finn, assistant deputy minister, materiel; and Brigadier-General Werner Liedtke, director general and deputy chief financial officer.

The Auditor General and deputy minister have opening statements. We would invite Mr. Ferguson to begin.

Welcome here, and thank you.

Mr. Michael Ferguson (Auditor General of Canada, Office of the Auditor General of Canada): Thank you.

[*Translation*]

Mr. Chair, thank you for this opportunity to discuss our 2016 fall report on Operating and Maintenance Support for Military Equipment.

Joining me at the table is Gordon Stock, the principal responsible for the audit.

[*English*]

In our audit, we examined whether National Defence managed equipment support in a cost-effective manner. We selected six types of major military equipment: the Globemaster strategic airlift aircraft, the Cyclone maritime helicopters, the Chinook medium- to heavy-lift helicopters, the 130J Hercules aircraft, the Victoria class submarines, and the tactical armoured patrol vehicles.

Overall we found that National Defence didn't adequately manage support for the selected equipment in a cost-effective manner, and it made some initial planning assumptions that underestimated support costs, overestimated equipment use, and under-resourced personnel requirements. Consequently, National Defence paid for a higher level of service than it used.

We found that National Defence assumed that the cost to support the 130J Hercules aircraft and the Cyclone maritime helicopter would be no more than the cost to support the replaced equipment. This assumption was not realistic because both the Hercules 130J and the Cyclone maritime helicopter have increased capabilities, their systems are more complex, and consequently they cost more to support.

We also found that National Defence did not use the selected equipment as much as it had originally planned due to delays in equipment delivery and a lack of personnel and funding for operations and maintenance. For a number of years, the funding and personnel allocated for the Victoria class submarines, the 130J Hercules aircraft, the Globemaster aircraft, and the Chinook helicopter were significantly below what was required to meet operational and training requirements.

The equipment support contracts included fixed minimum payments, but not using the equipment as planned meant that National Defence paid for a higher level of service than it used. National Defence has since renegotiated one of its equipment support contracts to improve its value for money.

[*Translation*]

Furthermore, National Defence assumed that maintenance personnel for new equipment would come from crews operating and servicing existing equipment, but it did not happen.

National Defence also did not have enough trained pilots, technicians, weapons systems managers and contracting staff. Without the right complement of personnel, equipment cannot be made available and used at the planned level of operation and training.

National Defence created new oversight bodies to improve its resource management. However, we found that these oversight bodies focused on acquiring equipment and did not give as much attention to equipment support.

National Defence needs to use an integrated resource management approach that incorporates all aspects of the equipment's life cycle, including acquisition, materiel, support, and personnel, from a cost and operational perspective.

While it is difficult to forecast how much it will cost to support major military equipment, the decisions that National Defence makes today about which equipment to buy and how it will support that equipment will have significant financial impacts for decades to come.

We made eight recommendations in our audit report. National Defence has responded that it will address each recommendation.

[*English*]

Mr. Chair, this concludes my opening statement. We would be pleased to answer any questions the committee may have.

Thank you.

The Chair: Thank you, Mr. Ferguson.

We'll now move to the deputy minister, Mr. Forster.

Welcome here. We look forward to your comments.

Mr. John Forster (Deputy Minister, Department of National Defence): Thank you, Mr. Chair and members of the committee. We appreciate the opportunity to be here today to discuss the Auditor General's fall 2016 report on operating and maintenance support for military equipment.

On behalf of all of us at this table and at National Defence, we'd like to acknowledge the work of Mr. Ferguson and his team, including Mr. Stock, in preparing the report. His recommendations will help us improve an area that is of critical importance to National Defence.

● (1535)

[*Translation*]

Indeed, there are few areas more important to us than operating and maintaining our equipment. There are fighter aircraft and unmanned aerial vehicles to frigates and submarines to modern tanks and weapons systems. There is also operational clothing and personal protective equipment.

The Canadian Armed Forces need it at their disposal and ready for deployment at a moment's notice if they are to fulfil their mission to protect Canada, defend North America, and contribute to international operations. They need equipment they can depend on so that when the unpredictable happens, they can respond, just as they did when a typhoon devastated the Philippines in 2013, killing more than 6,300 people.

Within days, Canadian Armed Forces personnel were on the ground delivering more than 230,000 pounds of food, and more than 10,000 pounds of shelter and building materials. The operation took a CC-144 Challenger, a CC-150 Polaris, three Globemasters, and three Griffon helicopters; and that's just in air support.

[*English*]

It is hard to predict what equipment our military will need next, so we err on the side of caution. We must ensure that our readiness levels are high, our stocks of spare parts are sufficient, and our women and men in uniform have access to the equipment they need, when they need it. We must also balance the needs of the forces, and flexibility, with the need to ensure value for money and economic benefits for Canadians.

The Auditor General acknowledged this in his report, noting that, "There is inherent complexity and unpredictability in forecasting equipment support that cannot be eliminated. National Defence must plan above minimum needs, so that its equipment is ready to respond to changing circumstances." He concluded, however, that we can do better, and we certainly agree.

We welcome the Auditor General's recommendations on how we can move forward. We're committed to implementing all eight recommendations. Our plans to do that are in the management action plan that we tabled with the committee last week. We'd be pleased to answer your questions specific to any of the eight recommendations.

I'd like to spend just a couple of minutes, Mr. Chair, on three of the main themes that run through his report. The first pertains to planning assumptions and our need to make them stronger. On this front we're making some progress.

In 2016 we started rolling out a new sustainment initiative that replaced the previous policy for sustainment contracts. We now bring together procurement experts from National Defence, from Public Services and Procurement, and from Innovation, Science and Economic Development. These experts work in close co-operation with industry to identify the best approaches for in-service support for our equipment. The benefits of this collaboration are many, not the least of which is that we can obtain the information necessary to determine, by fleet, what kind of life-cycle maintenance is required, what industry can offer at what cost, and how the federal departments can leverage their collective resources and know-how to make it happen.

Through the sustainment initiative, we are able to work with industry partners from the outset to ensure that the contracts we sign give us flexibility to change our requirements. As a result, going forward an increasing number of our contracts include provisions to enable us to adjust to changing circumstances, which is our reality—provisions that will make the armed forces more agile and responsive and deliver greater value for money.

To ensure that contracts are in the best interests of the forces and taxpayers, all of our larger in-service support contracts are now subject to a rigorous sustainment business case analysis. This includes a thorough review of possible options, to ensure that the solution chosen balances equipment performance, flexibility, value for money, and economic benefits. The sustainment initiative is still in early days, but it is producing some promising results.

As part of a pilot that was under way while the Auditor General prepared his report, we negotiated new long-term contracts for the engines of the CF-18 Hornet, the CP-140 Aurora, and the legacy Hercules aircraft fleets.

Another recent example cited in the report relates to the Hercules aircraft. We did award the original contract to support that aircraft's maximum projected use in Afghanistan. At the end of that operation, a number of factors had resulted in the fleet spending less time in the air than planned. Consequently, our sustainment requirements also changed. We've since renegotiated the contract to better reflect our revised needs. In doing so, we've introduced more flexible pricing based on fleet usage. More to the point, we guarantee greater fleet availability at lower cost. We're confident that our new approach under this sustainment initiative will start to address some of the main concerns raised in the Auditor General's fall report.

A second theme in the report relates to costing. Doing complete life-cycle costing for military equipment is challenging. While some costs, such as the purchase price of a piece of equipment, are relatively easy to track, others, such as development and disposal costs and the operating and maintenance costs for a 20- to 30-year period, are more difficult. For instance, the life-cycle cost requires that we project the salaries of people who operate the equipment and those who support the equipment, be they military or civilian or our industry partners. We must also account for the amount of fuel required to operate a fleet and its cost in any given year. Tracking some of these costs, such as an operator's time, and tying them to a specific piece of equipment will be challenging. Trying to estimate these costs is difficult, but we are making improvements since consolidating a number of our information systems into a central one, the defence resource management information system, DRMIS.

Over the last 18 months we've made improvements in our costing. Cost estimates for all planned and ongoing acquisitions have been reassessed and validated, as part of our defence policy review, including incremental maintenance costs over the life of the equipment. We also now have a much more robust costing model. We have projected costs on a life-cycle basis for projects, such as the future fighter capability project, our fixed-wing search and rescue aircraft, and our Arctic offshore patrol ships. We're also working on a full life-cycle costing of the Canadian surface combatants, the new ships for the navy. We've increased the number of costing specialists in defence from 30 to 80, the largest in the federal government. We've instituted a rigorous program to train them. These internationally certified costers have the expertise to ensure that the information is available to support the development of our departmental investment plan.

Finally, the third theme of the Auditor General's report is performance measurement. We're in the early stages of developing a departmental results framework. Among other things, the framework will have to establish standardized rules for entering our performance data, and validating and reviewing information systems. This means we'll be able to better access data on how we manage our in-service support, and with better data comes a better understanding of results. By this time next year, the framework will enable us to begin establishing benchmarks against which we compare our performance. It will tell us whether we're meeting our expectations with respect to equipment availability and condition, and it will highlight where we can improve. Developing performance measures and indicators now will enable us to do much more than just report on performance. It will allow us to turn data into information, and information into business intelligence.

● (1540)

As we discussed with you in January, we've also been working on amalgamating several data sources into our resource management information system, and we use that system to greater effect in several areas. Building on our work to date, we'll use DRMIS and other analytics tools to implement the management action plan for this audit. For example, we'll use DRMIS to track fleet availability in a way that is more conducive to measuring the effectiveness of our in-service support contracts, and that will enable us to refresh and measure through-life cost information.

More than 20,000 defence members use the system across Canada, on ships at sea and in locations around the world. We want to expand its reach ever further. Vice-Admiral Lloyd can talk to you about the navy, which is the most advanced in this area. We hope to roll this work out into other platforms in the air force and army, which is the direction we're headed.

I recognize that the challenge before us is sizable. We are making progressing in addressing it, but we acknowledge that we have much more to do. Again, I'd like to thank the Auditor General for helping us. We agree with his assessment and are at work implementing his recommendations.

Thank you. My colleagues and I will be happy to take your questions.

● (1545)

[*Translation*]

The Chair: Thank you very much Mr. Forster.

Mr. Lefebvre, you have the floor for seven minutes.

Mr. Paul Lefebvre (Sudbury, Lib.): Thank you, Mr. Chair.

I thank all of you for being here this afternoon.

[*English*]

In reviewing this matter again, it's always interesting how data comes up, certainly with the Canadian Armed Forces collecting the data, and now what to do with that data. Clearly the auditor has been in your offices many times, and again we see this theme of data management being a challenge. I hear your comments, which are positive, that this time we're doing more with the data that is being collected and about how we can certainly improve services to Canadians with the equipment support for the Canadian Armed Forces.

Again, in your comments, I'm very glad to see that, and as concrete measures, that is great, but I'd like you to turn to page 13 of the report, at paragraph 7.41. As we say in French sometimes,

[*Translation*]

"the more things change, the more they stay the same."

[*English*]

That's what I'm concerned about right now, that even though we're saying we're going to do things, this is not the first time that this has been brought to the forefront.

Paragraph 7.41 of the Auditor General's report says, and I'll read it:

> In our 2011 audit, we recommended that National Defence develop a means of monitoring overall and equipment-specific total cost information for maintenance and repairs. In response to our recommendation, National Defence stated that by December 2013, it would use its financial and materiel information system, the Defence Resource Management Information System (DRMIS), to record and monitor overall and equipment-specific total cost information for its maintenance and repair activities, such as personnel, contracted services, spare parts, maintenance equipment, and infrastructure costs.

Paragraph 7.42 says:

> We found that National Defence did not use DRMIS as the source of information on overall and equipment-specific costs for maintenance and repair.

And it goes on.

At that time, the department had said they would use the system. The Auditor General said they did not use its capabilities fully. Here we are in 2017, and you're telling us again that you will use this system.

How have things changed so basically now that we should be confident that the system will be better used? At the end of the day, we all agree that we're not getting value for money and we're all concerned about that. What specific measures can you tell us about today that we can rely on to be done?

Mr. John Forster: You will recall that we had a bit of this discussion when we were talking about inventory. I think it was before Christmas.

Previously in our information systems, we had one database for Mr. Finn's area of parts and equipment and inventory, financial records in a different system, and scheduling of work and repair work in a different system. The challenge for Defence has been in how to bring all of that information together into a common place. We want to be able to link parts with repairs with costing information and financial results. DRMIS is the system that doesn't replace all those, but it allows us to integrate the data. It allows us to take parts data from here, cost data from there, and bring it together to get an overall picture.

Mr. Paul Lefebvre: How long have you been using DRMIS, or how long has it been at your disposal?

● (1550)

Mr. John Forster: When I came two years ago, DRMIS was partly advanced. It was a bit stalled. We've invested considerably more money in the last two years to solidify DRMIS and use it more aggressively as our main information system.

For example, the navy uses DRMIS for parts, repair scheduling, maintenance, inventory, and costing. They're the leader in the armed forces of how we pulled that together. Our next challenge, then, is to roll that out. Some of the air force is in, some of it is not. We want to roll that out across the organization.

Maybe Ron can speak to that.

Vice-Admiral Ron Lloyd (Acting Vice Chief of the Defence Staff and Commander of the Royal Canadian Navy, Department of National Defence): The challenge, as discussed before, is that you have data, but in and of itself it's not information. You need to take that data and you need to put it into a report. From that report you can then make hypotheses. You can go and challenge them or you can make evidence-based decisions once you have the data that conveys information and intelligence.

One of the challenges we've had with DRMIS is that in order to reformat one of those reports, you have to go into the system and do that reprogramming. In 2015 we introduced a suite of tools, business objects, which allow you to rapidly access the data and then configure it in a report such that you can then make evidence-based decisions. We're having success with respect to moving forward on that.

So it's the tools, I would suggest, that are going to enable us to use that data better and more effectively and make better decisions going forward.

Mr. Paul Lefebvre: I see that. It's almost been a learning process with the data in terms of how to use it with the DRMIS system that you have.

Just quickly, how many different equipment support contracts do you have?

Rear-Admiral (Retired) Patrick Finn (Assistant Deputy Minister, Materiel, Department of National Defence): I manage well over 12,000 contracts.

Mr. Paul Lefebvre: What is the budget for these?

RAdm Patrick Finn: Just within the materiel group, it's between about $5 billion and $6 billion a year. There are some funds that come from elsewhere in the department, so I don't have a complete number for you, but I would say it's in the magnitude of $6 billion to $7 billion a year.

Mr. Paul Lefebvre: We've had challenges, obviously, with the types of contracts that were signed. From some of the reports I read, basically we signed a $70-million contract for maintenance but we only used 35% of it, or 60% of it.

In the Auditor General's opening statements, it says that National Defence has renegotiated one of its equipment support contracts to improve its value for money. This is one contract out of 12,000 possible contracts. Can you maybe explain further where we're at with this?

RAdm Patrick Finn: That specific contract is one of our larger contracts. We renegotiate all the contracts as they come due. We're introducing more of a performance base into all of them. There's a specific example; he's just describing one of the six, not only one in total. We've done a lot more. As they come due, we're introducing the principles that we've talked about here.

The Chair: Thank you, Mr. Finn and Mr. Lefebvre.

Mr. McColeman, you now have seven minutes.

Mr. Phil McColeman (Brantford—Brant, CPC): Thank you, Chair.

I think I'll state the obvious. This is a staggering report of poor value for money, poor systems of acquisition, poor monitoring. But that's not really where I want to go. Where I really want to go is to the solutions.

One of the examples that is mentioned in both the Auditor General's report and your report, Mr. Forster, is this. I'll read from the Auditor General's point eight:

> While it is difficult to forecast how much it will cost to support major military equipment, the decisions that National Defence makes today about which equipment to buy and how it will support that equipment will have significant financial impacts for decades to come.

Then I'll refer to your report, sir, just given to us, that projects costed on a life-cycle basis include the future fighter capacity project. So let's talk about that. Let's talk about improvements.

On the purchase, as introduced by the minister into the House, of Super Hornets without an open competition, what is the full life-cycle cost of purchasing the interim fleet of Super Hornets?

Mr. John Forster: At the moment, we are developing the full life-cycle costs for that acquisition. As the government announced last fall, it's entering into discussions with the U.S. government and with Boeing to determine whether we can obtain an interim fighter with the capability we need, in the time frame we need it, and at the cost, so part of the work—

● (1555)

Mr. Phil McColeman: Okay. That answers the question. Thank you so much.

You're telling me that we've committed to the purchase of fighter jets without knowing the full life-cycle cost.

Mr. John Forster: No, I'm not telling you that.

Mr. Phil McColeman: That's what the minister said in the House, sir.

Mr. John Forster: No, he hasn't, sir. He has said that we've gone into discussions with the U.S. government and with Boeing to look at the purchase of those fighter aircraft.

Mr. Phil McColeman: Sole-source contract—

Mr. John Forster: We have not entered into any contract with Boeing or the U.S. government to purchase the aircraft.

Mr. Phil McColeman: Thank you. Okay. Great.

When you do expect to have a figure?

Mr. John Forster: We've issued, as the government announced, a letter of request to the U.S. government through the U.S. Department of Defense, and they are providing information back to us. We would expect that by the fall. We will then proceed to do a full life-cycle costing analysis based on the information we get.

Mr. Phil McColeman: Will you provide these figures to the parliamentary budget officer when you have them?

Mr. John Forster: We're happy to provide—as we're required in law to provide—costing information we have to the parliamentary budget officer. At the moment, we don't have a full life-cycle cost estimate to share with him.

Mr. Phil McColeman: Should you proceed, when do you expect to take possession of the interim fleet of Super Hornets?

Mr. John Forster: That's part of what the process is: to determine, when Boeing would be able to provide these aircraft, would they have the capability Canada needs and at a cost that's acceptable to the Government of Canada?

Mr. Phil McColeman: How many aircraft are we talking about?

Mr. John Forster: Eighteen.

Mr. Phil McColeman: Have you done an indicative estimate for the Treasury Board?

Mr. John Forster: I beg your pardon?

Mr. Phil McColeman: Has your department approached Treasury Board with an indicative estimate?

Mr. John Forster: Not with an indicative estimate. We've issued the letter of request to the U.S. government to get that information.

Mr. Phil McColeman: If the U.S. government is providing you the costing information, we're not doing an internal costing inside your department?

Mr. John Forster: We will do the costing analysis based on the data that we get from the U.S. government and from Boeing, based on the requirements that we have for the aircraft.

Mr. Phil McColeman: In other words, there's a company out there that's going to give you their numbers—not competitive, meaning sole-sourced. They're going to give you the numbers, the U.S. government is going to provide you with input in terms of what they see the costs are, and then you'll begin your costing based on a sole-source company providing you that number.

Mr. John Forster: The numbers we use will come from the U.S. government.

Mr. Phil McColeman: You've just reversed yourself there, sir. You've said that it will come from Boeing as well.

Mr. John Forster: Boeing will feed their work into the U.S. government. The U.S. government will do their analysis and review of it and submit it formally to Canada.

Mr. Phil McColeman: When would you expect to have a substantial estimate?

Mr. John Forster: As I said, it will depend when the U.S. government responds to our letter of request. We're expecting that in the fall.

Mr. Phil McColeman: When would you expect that we would set up the infrastructure to handle this new fleet, meaning all of the technicians, all of the pilots, all of the recruitment necessary, and all the training necessary? Further to that question—you might expand on it for me—will all of those skills be transferable to whatever the next generation of aircraft might be, should they not be Super Hornets?

Mr. John Forster: We're doing the planning now. The air force is doing the planning around technicians, pilots, and infrastructure for the Super Hornets. Some of those skills will be transferable. Depending on what the winning aircraft is in the competition, there obviously will be different skills needed, depending on what the final purchase is.

Mr. Phil McColeman: Those skills may not transfer over to what the eventuality might be for the long-term needs of the Canadian air force and military, because they may be something different from those for the Super Hornet. I don't want to.... If I might—

Mr. John Forster: That's not quite what I said. I said that some of those skills are likely transferable. There will be some skills required, depending on which aircraft wins the competition; they will be needed. Each aircraft requires different training skills, equipment skills, and mechanics.

Mr. Phil McColeman: You've just stated that you were ramping up the infrastructure needed for the Super Hornets.

Mr. John Forster: I said that we're doing the planning and analysis for it.

Mr. Phil McColeman: The planning and analysis? The planning would take resources in your department and place them into a group that would say, "We need to do the planning for the Super Hornets even though we haven't decided whether we're going to get the Super Hornets."

Mr. John Forster: Yes. There's a group in the department in the air force that will look at both the interim fighter and the final replacement.

Mr. Phil McColeman: Would it seem like...? For me, I'm a small business guy. Help me. Is this not putting the cart before the horse?

You haven't decided. You've told me that you haven't decided on whether or not we're going to get value for money and the Super Hornet purchase is going to go forward, yet you're doing the planning for putting into place, the planning for the infrastructure—the planning, not the putting it into place—for the Super Hornets.

● (1600)

Mr. John Forster: Well, as I indicated, we're going to do full life-cycle costing of that acquisition. We have to look at what infrastructure may or may not be needed, and other elements of it. It's how you would acquire the equipment. It's part of the analysis we would do before the government takes a final decision on whether to acquire those aircraft. It will need the estimates, the analysis, and the numbers.

The Chair: Thank you very much, Mr. Forster. I think we may come back to some of this.

Mr. Christopherson, go ahead, please. You have seven minutes.

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

Thank you to all our witnesses for being here today.

You all know how long I've been around here. The more we get into this, the more I think we need a separate, stand-alone public accounts committee for defence and aboriginal affairs, because we just never seem to turn the corner. Every time the department comes in, it's always, "we got it right this time." I share Mr. Lefebvre's sentiment. Why should we believe that this time it's going to be different? I also agree with Mr. McColeman that this is an incendiary report.

Really what is problematic is not the part where we're finding new problems, and what are you going to do about it? It's these ongoing problems that keep happening time after time after time.

Let's go through it again.

On page 22 of the Auditor General's report, paragraph 7.85 is on National Defence's performance. These are the words of the Auditor General:

> In response to the questions about our 2011 audit, National Defence told the House of Commons Standing Committee on Public Accounts that it would develop performance measures on its maintenance and repair activities and its financial and materiel information system by December 13.

This is an example of how there's a problem, and there's an offer to fix it, and you tell us you're going to do this and everything's fine. And what does the next paragraph, 7.86, say?

> We found that while National Defence had established performance measures in support contracts with private firms, it did not develop similar measures for its own performance.

Help me understand how telling us in 2011 that you're going to deal with this issue effectively, and you're going to put the measures in place....and then we find out it was only a half-measure, that it was done for the private sector, but not on your own. Is there a good reason for that?

VAdm Ron Lloyd: With respect to our continuing performance, as we discussed previously, it's one thing having the data; it's another thing to provide it and distill it into the information to make the decisions.

As a result of the tools we've introduced in the department most recently, we're actually beginning to make steady progress in some of these areas. In particular, I'm thinking of spare parts for equipment through supply depots.

Right now by allowing the business owners—the actual army, navy, and air force—to have visibility of these parts, we're learning that we may actually have some of our parts stored in the wrong place.

Mr. David Christopherson: I'm sorry. I don't mean to be rude. You know the drill. We're short on time.

I specifically asked whether there is a good, common-sense reason why when you told us you were going to fix it, you only half-fixed it?

RAdm Patrick Finn: I think in the context of dollar amount, we're at more than half. As we brought the systems together, we tried to look at where our biggest expenditure is, and that is in the private sector, the support contracts.

We've been working on building the performance measures there, testing them out, and using them. We are now starting, as the vice-chief said, to roll those out to the army, navy, and air force, where there are uniform maintainers who do higher-level maintenance as per the maintenance that the Auditor General describes in here.

We're trying to take the core, the most expensive pieces, build the measures, and then actually roll them out to the rest of the department.

Mr. David Christopherson: Okay. I assume the second part is under way.

RAdm Patrick Finn: Yes, sir, it is.

Mr. David Christopherson: Just before I leave this and turn to another matter, I'm going to turn to you, Auditor General.

There's another matter related to this that is incredibly serious. The Auditor General stated in paragraph 7.71:

> Furthermore, the information National Defence presented in its annual Departmental Performance Report on equipment availability was not meaningful.

That report goes to Parliament. That's not just some internal whatever. That is your report to Parliament.

Auditor General, could you briefly tell us what your concern is? What exactly does it mean when you say the information was not meaningful?

● (1605)

Mr. Michael Ferguson: I think we explain that starting in paragraphs 88 and 89. In 89, for example, we say:

> We found that neither the Chinook helicopter nor the CC-130J Hercules aircraft were included in the aggregate calculation for the performance measure of availability reported in the Departmental Performance Report.

Then at the bottom of 89, we say:

> We also noted that when aggregating the overall calculation, National Defence included 100 percent availability for the submarines, whereas its internal reports showed that they were available for only 42 percent of their planned sea days.

Our concern was that the information that was being reported publicly in the departmental performance report was in some cases inconsistent with internal information that the department had. We would have expected that the information they were reporting to Parliament would have been the same type of information they had internally.

Mr. David Christopherson: Thank you.

Given time constraints, I want to move on until the chair hooks me out.

On page 9, exhibit 7.2, under "Assumption", says:

> Support costs for new equipment will be the same or less than for the previous equipment.

The reality is that:

> Support costs were as much as two to three times more than those of previous equipment due to enhanced operational capability and additional contractor responsibilities.

Your assumption—and with a lot of these things the assumption is the key—is that everything will be fine, the same cost or less. It ended up costing us two or three times as much.

Again, how did that happen?

Mr. John Forster: When you look at the equipment and what you're replacing it with, in a way you're a bit comparing apples to oranges. You had an older piece of equipment, less technology, and less capability.

In the case of the new equipment, it will cost you more—

Mr. David Christopherson: You didn't say that.

I'm sorry, sir, but you said here, under "Assumption", that the "new equipment will be the same or less".

The things you just talked about are the things the Auditor General pointed to that raised the cost. You didn't take that into account in the first go-around.

Mr. John Forster: That's right.

Now we do the life-cycle costing going forward on all of our major equipment that we've implemented in the last 18 months—a centre of costing. We're doing life-cycle costing, and we will look at what the sustainment and maintenance costs are.

We're not assuming it's the same as a 30-year old piece of equipment. We will look at that—

Mr. David Christopherson: You need all this high-priced help to tell you that, sir?

You needed all those people with scrambled eggs on their hat to tell you that things were not—

The Chair: Thank you, Mr. Christopherson.

We'll go to Mr. Arya, please.

You have seven minutes.

Mr. Chandra Arya (Nepean, Lib.): Thank you, Mr. Chair.

Mr. Forster, I'm glad that you mentioned the need for value for money, flexibility, and economic benefits to Canadians. The part on economic benefits to Canadians is the one that I'm interested in.

I'm also glad to note that you're talking of the federal government and how they can leverage their collective resources. With regard to that, the Canadian defence industry is quite strong. We have 63,000 employees in this sector, and 44% of them are in Ontario. The pay earned by the defence company workers is about 60% higher than comparable jobs elsewhere. Sixty per cent of the defence company's revenues are through export.

What you are doing to commercialize the hundreds of millions of dollars we have invested in DRDC? The Canada First defence strategy talks about the ongoing collaboration between the defence department and the industry. We also know that the Canadian defence budget during the next 20 years is higher than the oil sands capital investment. Oil was rolling at about $100 per barrel.

We are investing quite a large amount in Canadian defence. How can we use that investment in the defence budget to stimulate economic growth? Specifically on DRDC, with the technologies that are being developed, how are we commercializing them?

● (1610)

Mr. John Forster: Thank you, Mr. Chair.

DRDC is the research and development arm of National Defence, and they already do a lot of projects in co-operation with industry.

This is a really important issue that we heard in the consultations on the defence policy review: how can we better leverage, not just our research budget but also our procurement program to help Canadian industry deliver jobs, exports, and products for Canadians? That's an area that we're looking at quite significantly. We'll be—

Mr. Chandra Arya: You're looking at it, or are you taking steps to implement them?

Mr. John Forster: It's very much some of the work we are doing as part of the defence policy review, so I don't want to get out ahead of Minister Sajjan on that.

It's how do we better use our R and D budget to leverage Canadian jobs, exports, products, and how do we then use our procurement system as well?

Mr. Chandra Arya: We are investing quite sizable amounts in strategic aerospace and defence initiatives, we're spending billions of dollars on R and D. A good chunk of that goes to technology companies in the defence sector. The Canada First defence strategy also talked about the benefits to SMEs, which have the opportunity to grow and become world leaders in specific technologies.

This talk has been going on for years. I've asked the defence minister three times what he is doing in conjunction with the Minister of Innovation, Science and Economic Development to actually do something for the Canadian defence sector.

Mr. John Forster: We're doing quite a bit. I'll ask Pat to talk about how we use the procurement system to leverage that.

RAdm Patrick Finn: I think the key policy enabler is around the industrial and technological benefits program at Industry, Science and Economic Development Canada. In the context that you ask how we are specifically leveraging—

Mr. Chandra Arya: No, ITB has been there for a long time, but the benefits that were supposed to come from it are not happening.

RAdm Patrick Finn: Well, a lot of it is happening. If you look at a project like the Canadian surface combatant as an example and request for proposals coming in, 10%, I think, is the number of the value that has to be around small and medium enterprises' research and development innovation. We're already seeing, through the application of the policy, direct implications for Canadian companies, small and medium enterprises.

Mr. Chandra Arya: I am sorry, but time is short.

One specific segment in the different sectors is the C4ISR. In Ottawa we have 1,700 knowledge-based companies. We have the technology talent. We have everything that is required. We have a model in Washington, Annapolis belt. There are hundreds of small companies that cater to this particular sector. Is there anything you can do to promote small technology companies in Ottawa to specialize in C4ISR?

RAdm Patrick Finn: Again, if I could, that's where we're working with ISED, and they lead this area for the government. What we're doing around key industrial capabilities is, in fact, to identify that as a key industrial capability, to leverage it using intellectual technological benefits to drive it into a lot of our products.

Mr. Chandra Arya: Once again, KICs we have been talking around, but I'm looking at when the action will start.

RAdm Patrick Finn: It has started in a number of things that are being bid on. If I look at such things as fixed-wing search and rescue and a number of other carriers, Canadians are doing a lot of the integration around C4ISR solutions, small and medium enterprises that are being leveraged.

Mr. Chandra Arya: Okay.

I hope you guys look into the interaction between DRDC and the industry that takes it to the next higher level. I've been told by a lot of technology companies here that it is very difficult for them to understand the customers' needs. It is very difficult to get to and talk to the end customer because of the security requirements for anybody entering into the DRDC premises to have a meeting.

Mr. John Forster: We've also heard the same comments as we're doing the policy review. So again, if you can be patient another short while longer, I think you'll see that addressed.

Mr. Chandra Arya: Okay.

You also mentioned this different resource management information system. Whenever somebody talks about an information management system, all the flags go up for us. We have seen Phoenix; we have Shared Services, etc. Are you facing any problems there?

Mr. John Forster: The flags go up with me too, believe me.

As I said, when I came to the department, I think DRMIS had kind of stalled because it was trying to become one system where all the data went into it. We completely changed our approach to that. It will sit on top and grab data from other systems rather than trying to build —

Mr. Chandra Arya: No, my thing is, are we getting the resources to implement this?

The last question is, you mentioned it is very difficult to estimate the cost of the various programs we talked about. What is the experience in the U.S., the U.K., or France in terms of their costing?

● (1615)

The Chair: Someone has a very short period of time to answer that.

Mr. Finn.

RAdm Patrick Finn: It's very similar to ours. In fact, we share best practices, and they have the same challenges we have.

The Chair: Thank you.

We'll now move back to the opposition and to Mr. Jeneroux, please.

You have five minutes.

Mr. Matt Jeneroux (Edmonton Riverbend, CPC): Thank you, Mr. Chair.

Thank you to the witnesses for being here today and taking time out of your day to be here.

I want to come back to Mr. Forster on some of the questioning that my colleague beside me was asking, particularly with the life-cycle cost of purchasing the interim fleet of Super Hornets.

There was a *National Post* article February 2, 2017 where it says, “Sajjan announced in November the government’s decision to buy 18 Boeing Super Hornets as 'interim' fighter jets until a permanent replacement for the existing CF-18 aircraft could be bought.”

On that line of thought, I was hoping you could tell us what was included, what was excluded, and over how many years the life-cycle cost for this would be analyzed?

Mr. John Forster: I think if you read the actual announcement of the government, it did not say that it had decided to buy. It had decided to enter into discussions with the U.S. government and with Boeing to look at the possible purchase of 18 interim aircraft.

Part of the reason we're not making any decision to buy is we need information on capabilities, cost, schedule, and economic benefits for Canadians. As I mentioned, that letter of request has gone to the U.S. government, and that's the information that the government will then look at before finalizing any decision to purchase.

Mr. Matt Jeneroux: I understand that, and that's similar to your response earlier. However, it's obvious that the minister is preparing to go down this path, so is he going down this path without the support of the department?

I'll read you one more quote, this one directly from *Hansard* in question period, where the minister states, “We are investing into the legacy fleet as well. Plus, we are buying new Super Hornets.”

I don't know how much clearer that could be. You're obviously buying the Super Hornets, so we are asking for the estimated full life-cycle cost of purchasing them. Do you not have that? You mentioned that you're planning to do it. Can you help us out here? It sounds like the minister is buying these things, but it doesn't sound like you're in the loop that he is buying these things.

Mr. John Forster: Well, I would draw your attention to the government's announcement. When we get a response from the U.S. government to the letter of request, that will provide us the information on which we'll base a life-cycle cost analysis of those planes, and the government will then make a decision on whether it wants to proceed.

Mr. Matt Jeneroux: So you don't have the life-cycle cost.

Mr. John Forster: That's what I said. That's why we are getting the information. It's part of our letter of request to the U.S. government. We will do that and do our own analysis and challenge of those numbers, and develop a life-cycle cost estimate in the fall.

Mr. Matt Jeneroux: I can appreciate that if you don't have the information, you don't have the information. But then why is the minister saying, “We are buying new Super Hornets”? Why would you go down this road without having the costs associated with it?

As a guy from Alberta, I think this doesn't seem to jive. Where I'm from, you would go and buy something if you had the estimated full cost of it. You're saying you don't have the estimated full cost, and the minister said we're buying them, so I'm struggling to understand where exactly the disconnect is. Is the minister going alone on this? Is that your opinion, perhaps?

Mr. John Forster: Of course not, Mr. Chair. The minister is not going alone. He is working with his colleagues, the Minister of Procurement—

Mr. Matt Jeneroux: He doesn't appear to be.

Mr. John Forster: —and the Minister of Innovation and Science in a whole-of-government effort to look at whether the government should acquire 18 interim aircraft.

Mr. Matt Jeneroux: I don't think there is any “should”. According to the minister's comments, you are acquiring them, so—

Mr. David Christopherson: I have a point of order.

● (1620)

The Chair: Mr. Christopherson, go ahead on a point of order.

Mr. David Christopherson: Chair, I'd ask you to rule. I do this reluctantly, because they are close colleagues, but to the best of my knowledge there is nothing in here about what is being asked in the Auditor General's report. Questions like that properly belong at the defence committee. That's why we have that committee. This is about the report, and I'd ask my colleague to keep his....

It's not fair to our witnesses. They came in prepared to address the report, and now we're getting into active politics. It's almost like question period. That is the antithesis of what we should be doing here.

Chair, I'd ask you to step in, please.

The Chair: I think Mr. McColeman earlier quoted the area in the report where the Super Hornet could fall under question.

I would remind all colleagues to try to stick to the report. I tried to give as much leeway on other issues as on this one, and I tended not to say that it was out of order, but I will point us to the report.

I think your questioning is in order, but make sure that you stick a little closer to the actual report.

Mr. Matt Jeneroux: These are fair comments. I appreciate that, Chair.

I am addressing page 3 of the deputy minister's report here, where he talks about “the need to ensure value for money, flexibility and economic benefits for Canadians”, and at the bottom of it he says, “what kind of life-cycle maintenance is required”.

Trying to get to the bottom of exactly what's happening at the minister's office and what's happening at the deputy minister's office, I find there is a complete disconnect here. We are just looking for the economic estimates of what this will cost: the training, the new technicians and pilots, the maintenance, and so on.

I'll end my comments with that. If you have anything to add, go ahead, Mr. Forster.

Mr. John Forster: Mr. Chair, I think I've answered the question. I've explained the government's position. All of that analysis and work is being done and will be done before the government decides whether to purchase an interim fleet.

The Chair: Thank you, Mr. Forster.

We'll now move back to Madame Mendès and Mrs. Shanahan on the split.

Mrs. Shanahan, go ahead. You have five minutes.

Mrs. Brenda Shanahan (Châteauguay—Lacolle, Lib.): Thank you, Mr. Christopherson, for your interjection earlier, because I too am more interested in looking at the situation now, and how we're improving it going forward. I am distressed with the fact that we had a previous Auditor General's report in 2011, that improvements were not made adequately at that time, and that we have to come back at this time. That was the past; this is the present.

In reading the Auditor General's report, what hit me as a former commercial banker, who did finance large pieces of equipment, was the fact that the basic business assumptions hadn't been made. There were no proper costing estimates being made. There seemed to be a lack of training, both on the costing side and then on the support side. I remember well, both as a banker and certainly with the entrepreneurs that I dealt with, that this was thoroughly studied, often over months if not years, before major pieces of equipment were indeed purchased. I am heartened and encouraged to hear that this is indeed what is going on now.

I would like to ask Mr. Forster to expand a little bit on, first of all, the personnel that has been engaged to do that kind of independent costing, because that is critical. Then I'd like to hear a little bit more about the value-for-money contracts, because that certainly concerned me. There was sort of a fixed-cost service contract arrangement before, now we're going to a flexible process. The defence department, obviously, is a major purchaser, and businesses want to do business with us.

Mr. John Forster: I'll touch a little bit on the costing, and then ask Pat to speak to the contracts.

I totally agree with you on costing. A lot of the work of national defence had originally been more in the acquisition costs. Looking at the previous work of the Auditor General, particularly around the F-35, showed that we need to do better work on life-cycle costing. That is what we do now.

As I said, we've developed a much expanded centre of defence costing that's gone from 30 to 80 people, and international certification as part of the defence policy process. We've looked at all the costing of our projects. We've done that with international expertise, and we've had accounting firms come in and review that. That is the way we go forward on all major purchases.

Mrs. Brenda Shanahan: Can you expand on that a little bit more? Let's face it, when you're in a certain *encadrement*, it's hard to get that independent information. Where are you going to get that independent costing information? Are you working with outside suppliers? Are you working with allies?

● (1625)

Mr. John Forster: Exactly. We're working with a firm that's done costing work with our allies as well, so that we're benefiting from the global experience to enhance our costing. We have a very robust in-house large team, probably the largest costing team within the federal government. We're using outside experts and consultants who have worked in that field to draw on their knowledge, their costing experience with some of our closest allies, and getting information as well from other countries. All of that is now going in.

In some of our major platforms, we've also built in third-party challenge functions. Defence will do the costing, and then we're bringing in outside experts to challenge, review that costing, so the minister is getting an assurance that the work is done well. We're really trying to improve our costing. We invested a lot of money to do that, because we think it's absolutely critical.

Mrs. Brenda Shanahan: Very good, and then on the contracts?

RAdm Patrick Finn: We don't have fixed-priced contracts for maintenance. Sometimes we'll have a fixed floor. A lot of what's been described here is, I'll say, a minimum payment. There's been an evolution of in-service support contracts. Twenty years ago, largely for time and materiel contracts, when we had a large workforce, we would break out the equipment, and we'd have well over 12,000 contracts. We'd send them out for time and materiel, which meant for companies that the solution to get more profit was to take more time or to do more materiel. We have evolved. We went through a concept. With regard to a lot of what you're reading about in this report, the in-service support contracting framework, we tried to turn a lot more over to the original equipment manufacturers. We have found that, given the size of our contracts relative to those of international allies, they don't always give us the power we want. So we have evolved yet again through the sustainment initiative to have a lot more of the flexibility that you describe.

A lot of the performance we're looking for, which we think has better value, involves not just how much we're paying for maintenance, but ensuring that we're not doing maintenance we don't need. We are incentivizing industry. I often ask people whether the maintenance we do on our cars is all the right maintenance, or whether, if we could go into a dealership and renegotiate and say we would pay them more for less maintenance, they would be prepared to do it. It's hard to do with a single car, but it's something that in a number of areas we feel we have the economies of scale to do. In our early pilots, we've seen some really good results here. The deputy talked about engines on which we've seen quite a significant return. The renegotiation of the C-130J, the Hercules, is talked about in the report. After the first five years, during which we built a degree of knowledge, as did our allies, we've now renegotiated that with a pretty significant reduction in price. But a lot of it, again, is the performance and saying to them, "If you reduce the amount of maintenance we have to do on these aircraft, we'll actually share the savings with you." That's a lot of what we're after now, really changing the mindset of how we contract, but therefore, also, of our workforce in developing those contracts. There's a lot of complexity to it.

The Chair: Thank you very much.

We'll now move back to Mr. McColeman.

Mr. McColeman, we're on the second round still. You have five minutes.

Mr. Phil McColeman: Thank you, Chair.

I'll go back to Mr. Forster.

Sir, could I refer you to page 5 of your verbal report today and the transcript you've given us of your report? I want to move down to the fourth paragraph. It reads:

> Over the past 18 months, the cost estimates for all planned and ongoing acquisitions were reassessed and validated, including the incremental maintenance costs over the life of the equipment. Even more significantly, we now have a much more robust costing model.
>
> Projects costed...

—past tense, "costed"—

> ...on a lifecycle basis include: the Future Fighter Capability Project, the fixed-wing search and rescue aircraft, and Arctic offshore patrol ships. We're also working on full lifecycle costing for the Canadian Surface Combatants.

Are the three mentioned in the first sentence costed or are they not?

Mr. John Forster: The fighter replacement project that refers to is the full replacement that the government has announced. Those were costed under the former government when the policy was to look at buying F-35s. That's not the interim fighter; that's the full replacement of the entire fleet. In November, the government, along with the interim, announced that it would be proceeding to a full, open, and transparent competition on those.

● (1630)

Mr. Phil McColeman: I can assume, then, from your sentence that all of these three mentioned, including the fixed-wing search and rescue aircraft and the Arctic offshore patrol ships, have all been costed.

Mr. John Forster: They have been fully costed. Yes, sir.

Mr. Phil McColeman: Was that using the new, more robust costing model?

Mr. John Forster: Werner, do you want to speak to that?

Brigadier-General Werner Liedtke (Director General and Deputy Chief Financial Officer, Department of National Defence): Yes, that would be correct, sir. As we've mentioned, we've instituted a more professionalized costing certification, and through that we've developed more robust standards, and those standards were applied on these costings.

Mr. Phil McColeman: Thank you.

Now, with regard to the department's response to recommendation 7.48 of the Auditor General's report, National Defence stated that by the end of 2017, it:

> expects to deliver a plan that identifies individual acquired goods and services investments over $20 million as well as life-cycle costs on a program basis.

That was your response. In addition:

> National Defence will update and monitor life-cycle costs at key decision points.

What is National Defence's rationale for choosing the threshold of $20 million?

BGen Werner Liedtke: Really, it's the magnitude and the volume of the contracts that we do. If we develop the investment plan with every single contract over a million dollars, it would just be cumbersome and burdensome to do. So we use the materiel threshold at this time. In the IP2014, we did not include acquired goods and services at all, so this would be the first major step forward and then we would look at that threshold as we move forward.

Mr. Phil McColeman: Okay, that's fair enough. I interpret that as meaning anything under $20 million isn't going to be under the rigorous costing models.

My next point is, how will National Defence update—

BGen Werner Liedtke: No, sir, that's not correct.

Mr. Phil McColeman: Okay. It said you will do these things. I quoted it based on everything over $20 million.

BGen Werner Liedtke: No. Within the investment plan, we would identify as a specific item those contracts over $20 million, but we apply the same rigour to all contracts.

Mr. Phil McColeman: Okay, thank you for that.

How will National Defence update and monitor the life-cycle cost at key decisions points? How will you do that?

BGen Werner Liedtke: The key decision points usually are when a project hits the development and implementation stage. That's when we go from an indicative cost estimate to a substantive cost estimate—that's the time that we'll update the planning assumptions and apply the rigour necessary for a decision.

Mr. Phil McColeman: Okay, let's go back to where my colleague Mr. Christopherson was going. In view of the Auditor General's scathing report as summarized here in an executive summary today, is there any reasonable expectation that we could get a response from you about what's been learned through all of this poor management?

Mr. John Forster: Well, I think I would make a couple of points. It's a very good question. One, as we've indicated, we're going to always want to continue to improve our contracts for maintenance and support. There was a previous government policy on how to do this in 2006 or 2007. It gave us a lot of flexibility, but it did not give us the value for money that it should have. We've now evolved a new form of support contracts we hope to use. This new form gives us the ability to make sure we have the support we need to make sure the equipment is available, while allowing us to control and manage our costs better.

The lesson learned on costing is the full life-cycle costing. That's why we've stood up a defence costing centre and are implementing full life-cycle costing. Performance measurement is still going to be a good challenge for us. We're going to have to take to Treasury Board for approval a performance framework this year. The minister will have to present it and get it approved. Then we're going to have to make sure we can monitor and collect the data to do that.

In monitoring full life-cycle costing, we're still going to have a challenge. If I have a maintenance technician and he's part-time on one piece of equipment and part-time on another piece of equipment, we're going to have to figure out how we're going to monitor and track that, because the Auditor General has asked us to to compare those. I think there's continually going to be lessons learned. There's always going to be improvements we want to make. We're making some good improvements, but we have a lot more work to do and we'd be the first to acknowledge that.

● (1635)

The Chair: Thank you very much.

Mr. Chen.

Mr. Shaun Chen (Scarborough North, Lib.): Thank you very much.

To be honest, I don't know where to begin because there's so much in this report. Let me just start off by saying that at National Defence you have the task of purchasing, you have the task of supporting, and then you have the task of staffing. Based on the Auditor General's report, it looks like in three areas you've gone wrong.

On the first, in terms of purchasing, you've overestimated equipment use, you've over-purchased. With respect to support, you have underestimated the cost of providing that support to the equipment. Then in terms of staffing, you have under-resourced the personnel requirements.

Let me just pick one. I'll go to the support of equipment.

Mr. Forster, you said earlier that while some costs, such as the purchase price of a piece of equipment, are relatively easy to track, others, such as the development and disposal cost and the operating and maintenance costs over a 20- to 30-year period, are not. As reasonable people, we can certainly appreciate that type of explanation.

However, in the Auditor General's report, it was also pointed out, with respect to the use of incremental funds, that money that was specifically allocated for particular purposes was not used for that purpose. There's an example the Auditor General gave in his report that $115 million was provided in the 2014-15 fiscal year to support the Chinook helicopter, and $137 per year thereafter. Part of that money was not spent for that purpose. What's worse is that there wasn't any monitoring from National Defence.

My question is in two parts. First, to the Auditor General, beyond that finding were you able to provide any type of assessment in terms of how this happened? Was this a blatant disregard of what is expected by the Treasury Board, which is that when incremental funds from the government are allocated for a specific purpose, that money be used for what it was allocated for?

My second question is to Mr. Forster. What happened there?

The Chair: Mr. Ferguson, please.

Mr. Michael Ferguson: In the report, we reported what we found. Obviously, we are not party to any conversations that may have gone on around this. Fundamentally, Treasury Board, as we say in paragraph 49, requires that these types of funds be tracked. We looked to see how the money was spent.

We talk about the case of the Globemaster aircraft, where we found that “National Defence was allocated $140 million a year in incremental funding for Globemaster aircraft support, but spent only $79 million in the 2015–16 fiscal year.” Then we talk about trying to track money that wasn't spent.

Based on our understanding there was an expectation from Treasury Board that these earmarked funds would be tracked and that the department would be able to report on them, but in a number of the examples we cite here, we found that we couldn't see where the money was spent on that equipment and we couldn't see what else it was spent on. Essentially, that's simply the situation as we found it.

The Chair: Mr. Forster.

● (1640)

Mr. John Forster: Maybe I'll ask Werner to answer.

BGen Werner Liedtke: With respect to bringing in money from the fiscal framework, generally in the past the in-service support has been an average amount throughout the life of the asset. There is a clear understanding with Treasury Board that in some years the amount will be below the average, and we will retain the money and retain it within the in-service support envelope. In other years there will be more, where again we would manage it within the envelope, and if it gets higher....

To overcome this issue in the future, we're now mapping out the actual estimated cost over the life of the asset and we're profiling it year over year, to move away from using averages.

The other thing we've done is that in the past the amount was based on the overall average, where now we're actually phasing it in slowly. For example, with the MHLH helicopter we phased the amount in over a number of years to get to the steady state of the $137 million that's identified in the report.

The Chair: You have 20 seconds.

Mr. Shaun Chen: I was going to split my time with my colleague, but I guess I've taken it all.

The Chair: The clock didn't recognize, though, that you were going to split. We're going back to Mr. Christopherson. Fear not, we will get back to you.

Mr. Christopherson.

Mr. David Christopherson: Thanks, Chair.

To go back to the chart on page 9, at some point even our discussions will turn the corner and look forward, but we have to do an adequate job of looking at where we've been.

I pointed out earlier that on the costs for new equipment, the assumption was that the support costs for new equipment would be the same or less, and it ended up being three times as much. I also want to bring to your attention the third part of that chart, where it says that the "level of effort for support activities is predictable." That was the assumption. They assumed that the level of effort for support activities would be predictable.

When we see what actually happened, we see that the level of effort for submarine maintenance was significantly more than expected, and that's putting it mildly, given that "National Defence estimated that in-depth maintenance would take less than one year per submarine, at a cost of $35 million each". As stated, "Although the in-depth maintenance period was reduced from 6 years to 4 years for each submarine, the most recent one cost"—hang on—"$321 million." We went from $35 million projected to $321 million.

I mean, we can all understand a near miss, but wow. Please help me understand how we got here from an assumption that basically said, "Hey, don't worry, everything will be predictable, it all looks good, and we will be able to do this." You thought that was going to be about $35 million, and you ended up at $321 million. Help me with this, please.

The Chair: Mr. Forster or Mr. Finn, who can help him?

Mr. David Christopherson: You must be ready for it. I'm sure you are.

RAdm Patrick Finn: I can.

We have a number of factors, some of which you point at, rightfully so, and that the Auditor General points at.

On historical costs, are they the best indication of future costs? The answer is no. At times when we're doing some of these things—and again, in a period without the "costers" we have today—the only data we have is historical costs. That's part of it. That's something that we've been working on and improving.

I'll just point out, though, for the $35 million to the $321 million, if I can call it the "contractual costs", that part of it is lessons learned in that contract on how we're doing maintenance. For example, it's not an overall increase. It's what we've brought into the contract. It includes other maintenance that we were doing as heavy maintenance, through other contractual vehicles that we found to have the economies of scale, bringing it all into the Victoria in-service support contract. That accounts for some of the increase, which again is not a cost increase, but an increase in the use of that contract.

A lot of it is capital improvements. That is not maintenance. We do this. In particular, in a ship or a submarine, when you have it taken apart to do maintenance, if you're going to change sonars, periscopes, torpedoes, and communications, the time to do that work is while you're doing the maintenance. Again, capital projects are approved separately, and the contract becomes the vehicle by which we do the installation, so it's not entirely an increase in maintenance costs.

The other thing is that we relooked at the approach to maintenance. As it says here, again, we acquired the Victoria class submarines with very little time at sea and not a good understanding of what is an extremely complex platform, which has dire consequences if you have major system failure. At first, we looked at about a four-and-a-half-year cycle and then about a year and a half in heavy maintenance. What we've been able to do is bundle together a lot more of the heavy maintenance. Now we've evolved all the way to a nine-year cycle and then putting the boat into maintenance for three years.

Certainly, it is an indication of some of the things you're pointing at, sir, some of which is an underestimation of maintenance and that, but there are other factors at play here, which include bringing more maintenance into the contract from elsewhere, capital investments that are occurring in this, and the periodicity of the maintenance, which is to say that we're doing more in-depth and deeper maintenance less often, sir, but it's taking longer.

● (1645)

The Chair: Mr. Christopherson, you're a minute and a half over. I'll give you a summary, or we can come back to you in the next round.

Mr. David Christopherson: How about I just ask one quick question with that, Chair? Then I'm ready to move into another area the next time if I get a chance.

I'm just curious. Did you give that explanation to the Auditor General? It looks like apples and apples here, and you're suggesting that part of the answer is apples and oranges. Did the Auditor General's office know that?

I get what you're saying. Something has to explain it, but it would also seem to me that that you would have explained that to the Auditor General, who would have reflected that in the report.

RAdm Patrick Finn: I can't speak to the specifics of it. We had many engagements. I engaged several times with some of the principals and others. We went through some of these areas.

The point is that the $35 million did not include a lot of the capital costs, capital improvements, so we went through a fair bit of this.

Mr. David Christopherson: If there's any time left, could I ask the Auditor General to comment on what he's just heard?

The Chair: Mr. Stock or Mr. Ferguson.

Mr. Gordon Stock (Principal, Office of the Auditor General of Canada): The only other thing I would add is that at the time those submarines were purchased, which is a considerable period of time ago, there wasn't a lot known as to how much it would cost. At the time the $35 million was put forward, it was based on an absence of information. As well, we were told that they had to build supply chains to be able to have the parts to do the in-depth maintenance that was needed and to develop the procedures.

We understood that it's not entirely apples to apples, but at the same time it's an absence of information to more information.

The Chair: Again, a lack of data, perhaps.

Mr. McColeman, please.

Mr. Phil McColeman: Thank you, Mr. Chair.

I will refer to the Auditor General's Report 7, Operating and Maintenance Support for Military Equipment, National Defence, but before I go there, I want to go back to Mr. Forster.

Sir, I owned a small contracting company. There's a simple way to track your costs. You said it's very difficult and complex to track actual cost and allocate it to something. In my era, being the dinosaur that I am, it was called time sheets. Every one of my employees filled them out—two hours spent replacing the toilet; three hours spent doing trim work to the door. Then those were brought back to the office, and we input them into our database of the costing for that job to know at the end of the job what we had spent against how we had costed the job, and whether we had made money or lost money on that job. That was in the days before a lot of sophistication.

I watch people doing work for me these days. The plumber or the carpenter brings one of these in. There's a program. They mark in the number of hours they do on a particular project. Some of these companies have codes for the type of work it is. It goes into a database. It gets funnelled through an electronic system. There's no more transcribing in the office; it saves staff inside transcribing into the costing file, the paper hard copy. I believe this is how it's done today, although I haven't been in the business since 1996.

That said, why is it so complicated?

Mr. John Forster: That's a completely understandable, good way to look at it.

Now, that's for doing repair work on your piece of equipment. For us, to do life-cycle costs, it's not just the repair work. We do track repair costs, but when we get into the full life-cycle costs, it means the operation of that piece of equipment. In Vice-Admiral Lloyd's case, I have a major ship; it's going to have 100 different systems—weapons, technology, computers, propulsion, engines. For me to track the full life-cycle cost, I have to track the operating costs of 100 different systems on that ship. If I have five sailors running that ship, how do we attribute the cost to the engine, to the weapons system, to the radar system, etc?

In terms of repair and maintenance and support, that part, as I said in my remarks, is probably easier for us to do. The harder part is how to track the operating cost and attribute it to specific pieces of equipment or a specific system on a ship, for example.

● (1650)

Mr. Phil McColeman: I'll tell you how you do it. In this modern world of computers, you have a category for everything right down to replacing the screw that came loose on that hinge. In today's modern technology, sir, it is possible, and if you have a category where you cannot define it, you have the category called "undefined". You put it in that category, and you ask the person who's executing to describe what it is they did, because they cannot find a category for it.

I'm illustrating for you the fact that in a modern database tracking system, a cost tracking system.... We're not talking here about estimating what the costs will be. We're not talking about that.

Mr. John Forster: No, no, I understand.

Mr. Phil McColeman: We're talking about what you said earlier, that it gets very complex and difficult. I would ask you to explore the types of databases available to do that.

As we move on, though, I do want to ask you in relation to the report, particularly the operating and support of the military costs, how do you define life-cycle costs? What is included in life-cycle costs, and what is excluded, and over how many years do you determine life-cycle costs?

BGen Werner Liedtke: The life-cycle cost estimate is basically looking at it from cradle to grave. There are really five phases. There is the development work to determine what you need on the asset; the acquisition itself of the asset; the sustainment cost, which is the maintenance side; the operating of the asset itself; and then the disposal of the asset. Those are the five components of the life-cycle cost.

Mr. Phil McColeman: Thank you.

Mr. John Forster: Just on the point of how long you do that will depend on the asset. On the surface combatants, when we do life-cycle costing, it's going to have to be 50-plus years, depending on how long we're going to use those ships.

The Chair: Thank you, Mr. Forster.

Madame Mendès.

[*Translation*]

Mrs. Alexandra Mendès (Brossard—Saint-Lambert, Lib.): Thank you very much, Mr. Chair.

I am going to share my speaking time with my colleague Mr. Fragiskatos.

My questions concern data collection and processing. I would like to put my questions to Mr. Stock, if I may.

Following the study you did for this report, do you think that the new central data processing system, the Defence Resource Management Information System, or DRMIS, is the answer to all of the challenges faced over the past years by National Defence in managing data calculations regarding the cost and life span of equipment?

I should say that this is a problem we see everywhere in government. The whole issue of data management is indeed very complex; I understand that. However, how can we be sure that you now have the system you need? Were you reassured by what you saw?

Mr. Gordon Stock: Thank you for the question.

[*English*]

The best way to look at this is through the different parts of the defence resource management information system, some relate to personnel costs, some relate to inventory costs, all the way through. Within the planning side of it, when you're trying to do that life-cycle costing at the beginning, at the planning stage, you need to know how the equipment's going to be used, the planned use of the equipment. You need to know the personnel, how many personnel you're going to need, parts, everything to do with that. So, yes, that is very complex.

That full life-cycle costing, as the equipment is used, provides you with more information, and that should be updated. That's really where we were looking within the report as far as using that life-cycle information on an equipment basis. You would track it for the major pieces of equipment, so that you would know whether or not they are actually performing as expected.

● (1655)

[*Translation*]

Mrs. Alexandra Mendès: Do you think that National Defence now has the system to allow it to do that?

[*English*]

Mr. Gordon Stock: The current system is still in a state of development, because it is not integrated in the same way. In terms of the human resource side, along with the planned use, one of the difficulties is that if the equipment is not used the way it was planned to begin with, then you're left with contracts that were set up to use it in a different way. You end up not having the value for money that you were looking for, or you have not had the equipment in place to do the training, so then it is not used as much from that side. It takes about five different areas that need to be continually worked on, put together, and integrated. I believe that it is looking—

Mrs. Alexandra Mendès: A work in progress.

Mr. Gordon Stock: It's a work in progress. It is looking as though there is going to be progress, but we still have to see that.

[*Translation*]

Mrs. Alexandra Mendès: Thank you very much.

I will share the rest of my speaking time with my colleague.

[*English*]

The Chair: Mr. Fragiskatos.

Mr. Peter Fragiskatos (London North Centre, Lib.): Thank you very much, Mr. Chair.

My question is for Mr. Ferguson. In 2011, your office's report "Maintaining and Repairing Military Equipment " stated there was a lack of cost and performance information as well as a significant gap between the demand for maintenance and repair services and the funds available.

To your 2016 report, paragraph 3 of your outline here today says that National Defence made some initial planning assumptions that underestimated support costs, overestimated equipment use, and under-resourced personnel requirements. Back to point 6, National Defence did not have enough trained pilots, technicians, weapon system managers, and contracting staff to carry out maintenance work for new equipment.

With all that in mind, my question comes from the perspective of not only me as a member of Parliament, but also on behalf of constituents and taxpayers. These are, from an outsider's perspective and with hindsight in mind, simple mistakes that shouldn't have been made. But why are they made, not only with respect to what has happened in National Defence, but as I know this committee has heard before, with respect to other departments?

I know your office has written a number of reports over the years that outline mistakes that are made that led to the ineffective and inefficient use of funds. Again, from a taxpayer's perspective, these mistakes shouldn't be made, but all too often they are. What are some potential patterns that you've identified throughout all this? Is it the complexity inherent in this sort of work in terms of purchasing, a lack of communication, silos within departments, for instance? What sorts of patterns could you point to?

Mr. Michael Ferguson: I think, perhaps, what I want to start with is just the why life-cycle costing, for example, is important. When you're dealing with this type of equipment, and we've heard about the complexity, we've heard about how much the equipment costs, how long the equipment's going to last, how many people are needed to support it, how many people are needed to operate it, all of the costs, fuel and other things that go into operating it, maintaining inventories, it's extremely complex. So whenever a significant piece of equipment is being purchased, that significant piece of equipment can have a significant impact on the budget of the department for many years to come.

The idea about life-cycle costing isn't about trying to tell departments they need to be able to figure out how much a replacement bolt is going to cost 25 years from now. It's about telling departments that they need to make sure they're doing a good job of understanding, when they buy a piece of equipment, what the impact of that will be going forward.

I think here, one of the things that we particularly identified—and I think this is a common issue in other large projects—goes back to the assumptions. One of the assumptions that we highlighted and has been talked about today a number of times is the assumption that the cost to maintain and support the new equipment would be no more than the cost to maintain and support the old equipment.

At the time, and I think one of the things that bothers me a bit about today is that the people who made the decisions and the people who made the responses to us in 2011 are not the people who are here today who are having to try to defend why the department said they would get some of these things fixed by now and they haven't gotten them fixed.

When you go back to some of these decisions, that the support cost for new equipment would be the same or less than the previous equipment—and I think I said it in my opening statement—that just was not a realistic assumption. It's important for these assumptions to be realistic so that the departments understand, when they're buying a significantly complex piece of equipment, that it may significantly change how many people you have supporting it, how many technicians there need to be, what the operations are even in terms of military personnel for the new pieces of equipment, because it's going to be different. Starting with an assumption, for example, that it's not going to be different, quite frankly, isn't a realistic assumption.

I think two things to draw from this are the importance of life-cycle costing, not down to the nuts-and-bolts issue but from the point of view of how it will impact long term, and in what pattern, the budget of the department; and the importance of having good planning assumptions that are realistic, to help you understand what that impact is going to be.

● (1700)

The Chair: Thank you, Mr. Ferguson.

Mr. Christopherson.

Mr. David Christopherson: Thank you, Mr. Chair.

I very much appreciate, Mr. Ferguson, those last few remarks because anybody who is watching this—and I know there are people who follow these kinds of matters carefully—would recall we went to where this became a *cause célèbre* in the recent past on the F-35. It was a huge factor, billions of dollars. It would seem that we're getting closer, but we're still not there. We seem to be getting closer.

I'll turn to page 16, paragraph 7.59:

> In certain cases, the contracts reflected a reduced number of flying hours or a start-up period before reaching the expected steady state. We found that actual usage was below original expectations due to a lack of personnel and funding for operations and maintenance. In the 2015–16 fiscal year, actual equipment usages compared with their expected steady states for the CC-130J Hercules aircraft, Globemaster aircraft, and Chinook helicopter were 62 percent, 80 percent, and 39 percent, respectively.

Common sense dictates that, if you don't use it as much, you're not going to achieve the savings. Somebody talk to me about this. I understand there are a lot of things connected with that, budget cuts and that. Is there not some mechanism that...? For instance, does the minister know when they make a decision to reduce personnel or funding? Are these kinds of things brought to them? This has a domino effect down the road. That's what I'm trying to get at. I'm trying to understand how things could be so far off, but also, is this connected to other decisions that have an impact on it?

Mr. John Forster: I'll say a few words and then I'll turn to Pat.

All of these contracts predated how we are approaching it now. We locked in kind of a fixed level of support, then you pay the increment. A lot of that would have been to make sure that we have more than enough support so that, if we end up using the plane—you can't predict crises in the world, you can't predict where your planes need to fly—we have it well covered.

As Pat indicated earlier, the new kind of contract we're trying to sign for that has tiered pricing so we're not locked in. When we have either.... We're finished in Afghanistan, then we no longer use the plane as much, or we have budget cuts that were put in place.... We had $2 billion in budget cuts to deal with. You can adjust your contracts going forward. That's what we've talked about in terms of the new kind of contract we're trying to sign.

Pat, do you want to add anything?

● (1705)

RAdm Patrick Finn: In separating out I think the two key points the Auditor General made, the importance of life-cycle costing and the good planning assumptions, if you look at the main fleets we're talking about here, all were acquired and looked at in service support contract during the height of our mission in Afghanistan. If you think about how much we were using the previous generation of Chinooks, how much we were using C-130J, etc., during a fairly large campaign on the ground with troops dying because of improvised explosive devices, we were operating those fleets to the levels we're talking about here.

Where we stumbled, I think it was perhaps a rational assumption that we would continue to use it at that level, and therefore structured it accordingly to make sure we would have the capacity because what we don't want to find ourselves doing is my saying to the chief, "I know you have a mission, you have to deploy here, but I don't have a support contract." But admittedly, structuring it in a way that says we're going to use all these hours is where we erred.

As we renew them, as we've done in the C-130J, which is the same contract...but when it came up for renewal period, we went back to the original equipment manufacturer, Lockheed Martin, based on international practices and reduced it. As the Chinooks come forward and the other ones come forward, we'll do the same. We'll band them and tier them, but we want to make sure that we get good value for money. There is a threshold at which we have to pay for the readiness for industry to be there and ready to surge. It's just to make sure that we're not paying a ridiculous amount for a few hours, and that's what we're trying to change.

Mr. David Christopherson: Which we have been up until now.

RAdm Patrick Finn: There certainly are examples where we've absolutely done that. That's where, as we renegotiated C-130Js and moved to the others, the new contracts and the new fleets we're bringing into place now follow much more the sustainment initiative—and you asked about lessons learned—that make sure we adopt that lesson.

Mr. David Christopherson: Deputy, you look like you were getting—

VAdm Ron Lloyd: If I could just add, looking forward.... The force posture and readiness is a mechanism. It's a tool by which a chief of the defence staff sets the readiness across the fleets of the Canadian Armed Forces.

One of the things where we'll start to use DRMIS and these new tools is in looking at how we're actually delivering that force posture and that readiness across the board.

In the navy, as the deputy minister indicated, we've adopted business practices, if you will, because that's the way to maximize profits. Unlike business, where profits are measured in terms of dollars and cents, we measure our profits in terms of increased personnel, materiel, and combat readiness. These tools will help us do that.

We'll then take a look at what we've planned to expend in terms of hours on aircraft, sea days on ships, and kilometres in vehicles, for example. Then we'll see how we did compared to that plan. We'll execute, and then we'll measure. Then we'll adjust to make sure we have it right so that when the national procurement oversight committee sits down and we allocate those resources, we'll have a trend with respect to how well we're doing against that benchmark.

Mr. David Christopherson: Thank you for that. I appreciate it.

I will just mention that I do understand some of the readiness you're talking about. For eight months, I was the defence critic, so I do have an understanding of that. That's why, when you were saying you needed to be ready, I mouthed to the deputy that you don't want the opposite. That's an even bigger problem. It doesn't mean this one doesn't have to be managed, but I understand you can't push the button and have nothing happen when you do that. When you need something to move, it has to move.

Mr. John Forster: That's exactly it.

The Chair: Thank you, Mr. Christopherson.

Mr. McColeman, please.

Mr. Phil McColeman: Thank you, Mr. Chair.

I want to ask a couple of general questions on policy. Does the department have policy regarding sole-source contracts?

Mr. John Forster: Yes. The Government of Canada has policy regarding sole-source contracts.

Pat, do you want to add to this?

RAdm Patrick Finn: They fall under the government contracting regulations. There are, generally, four criteria under which we could choose to sole-source. For all of our large contracts, we, of course, do that through Public Services and Procurement Canada and, in many cases, Treasury Board. However, there is actually a policy with four criteria.

Mr. Phil McColeman: What are those four criteria?

RAdm Patrick Finn: The contract is under $25,000, there is only one source of supply, not in the national interest, or there is an emergency.

There are also, in the context—and this falls under the government contracting regulations at Treasury Board—some caveats that were introduced by the previous government that allow us to step outside of the government contracting regulations...notably, urgent operational requirements.

Mr. Phil McColeman: The first one you said was “under $25,000”. Is that correct?

RAdm Patrick Finn: That is correct.

Mr. Phil McColeman: That's the first criteria. Okay.

Again, I know this is government policy. Mr. Chair, if I'm veering here too much, please let me know. In the Auditor General's view, in terms of the objective voice here, what are best practices regarding sourcing or procurement? Is it in every case that we can have a competitive bidding situation best business practice? Or, in your view, is sole-sourcing a practice that should be, for sake of a better word and from the world I come from, tolerated?

● (1710)

Mr. Michael Ferguson: Whenever there was an acquisition, no matter how it was done—sole source, competitive, etc.—what we would do is make sure the rules had been appropriately followed and the decisions had been appropriately supported. If there were a decision, for example, to sole-source, we would look at the four criteria that were just mentioned, or we might look at this urgent operational requirement criterion. We would go back and make sure that, in any acquisition, the department had appropriately applied the rules and had documented why it felt that it was an emergency situation or a national interest question, or whatever. Why did it feel that was the case? If it was with regard to a sole-source contract, did it seem to have appropriately supported why it chose that part of the sole-source criteria to justify a sole-source contract?

Mr. Phil McColeman: Thank you for that.

I'm also curious to see if there are any further comments.

Mr. Fragiskatos, I really liked your line of questioning in terms of pulling together a perspective on trends, on being able to use the collective knowledge for a more effective use of hard-working taxpayers' dollars, frankly.

When I sit here as a parliamentarian and I look at you, I don't envy the position you're in. We're pushing you hard. We're pushing you hard on issues of value, and the Auditor General is pushing you hard on issues of value. In your own personal lives, I suspect you're interested in getting value. When you see some of what's uncovered in an Auditor General's report like this, your perspective somehow gets a little lost. This should not happen, if we could all agree on that premise, and yet it's happened.

As an extension of my colleague's earlier comments—and I said it earlier in a different way—what is really learned here? Can we not apply the simple value propositions that each of us use in our lives to make sure these things don't happen? Is it unreasonable to ask that question, as a parliamentarian, as a person who's asking for scrutiny here in a very hard, difficult way? These seem to me to be elements that should be worked into every discussion of every procurement of every item, right down to the boots the soldiers wear.

Mr. John Forster: I think that's a perfectly reasonable approach to take, and I would agree totally with it, both as a taxpayer and also as the deputy minister of the department. If I'm wasting money in one area, that means I have less money to spend on equipment or readiness or training for the armed forces. As I said earlier, I think there are key lessons learned. How do we do better planning upfront? Do we need to lock in a certain level of availability, hours per year on an aircraft, or how do we get more flexibility to move it up and move it down, recognizing that there will be a premium for some of that flexibility? Where's the balance there? How do we do better life-cycle costing? I've spoken today about the steps we've taken, and actually I believe we have taken significant steps in the last 18 months to improve how we do costing in this department. How are we going to measure and track our performance? I agree with everything the Auditor General has said. How do we get to do that better? It is a big, complex beast. It operates around the world 24-7, hundreds of platforms, millions of parts. We're running an airline, a trucking service, a hospital, the works. Yes, we need to do better, and that's what we're trying to do with our system.

You should see what the navy has done. They can go to any ship, anywhere in the world 24-7 and know what the repair status is, know what maintenance has been done, what's scheduled, what needs to be done, what parts they're going to use; and that's the future direction we want to go. As much as you talked about your hand-held device, we're doing that now on ships, and we want to do it around all the rest of the fleets. The directions are there, the work is there, but I think it's always going to be that you're going to want to do better and better, and there's never a final destination on this.

● (1715)

The Chair: Thank you very much.

Ms. Shanahan.

Mrs. Brenda Shanahan: I want to pick up on a few things. I think we're really getting to where we want to go with this. Really, it's an ongoing discussion. It's not for nothing that you have appeared before us on different occasions. There are many moving parts. I'm always interested, personally, in how we can improve things going forward, and frankly, looking for signs that there is learning going on, that there is a using of outside knowledge as well. So to get to performance measurement, I'm very interested, Mr. Lloyd, when you say that the performance in your world is not dollars and cents, but actually in tangible outcomes.

Just in passing, I had the occasion to visit a group of visiting Commonwealth parliamentarians in public accounts last week, in Montreal. One thing that they are looking to us for—Mr. Ferguson, you'd be interested to hear this—is how we do performance measurement here in Canada, how the Auditor General's office does that, and how we're doing that as the public accounts office. Please talk to me about the things that you've learned about performance indicators, and then I would like to hear from Mr. Ferguson about what he sees can be improved.

Mr. John Forster: I think the big challenge for a lot of us on performance indicators is the data to support them. It's pretty easy to come up with great indicators. It's often very difficult to then find an inexpensive, efficient way to collect that data.

The government has now given us a pretty heavy task, which is to come up with a much more robust results framework for all departments. For the Department of National Defence, Vice-Admiral Lloyd is leading that work. Maybe I'll let him speak a bit to that.

VAdm Ron Lloyd: One of the key areas that clearly we have to have visibility on is our spend. If we use the budget that the navy is provided as an example, now that we're able to leverage the financial aspects of DRMIS, using these tools, I can now give you visibility into our spend across a number of activities.

We've broken the navy up into various business lines, and now we have visibility into our spend. It's not in accordance with your vote or whether it's personnel or it's reserve, but what are the activities that you're spending money on? Now that you have visibility with respect to where your spend is, you can then see if it actually maps to your priorities.

One of the things that we firmly believe is that if you want to understand an organization's priorities, you track the money. Now we're tracking the money to make sure that it aligns with the overall navy's priorities, and we need to scale that across the department.

We have learned a significant amount over the last two years with respect to performance measurement, and we've now been able to scale it, not only from our financial but into our materiel and our personnel and training. We're continuing to make consistent progress with respect to those initiatives.

Mrs. Brenda Shanahan: Would you say that you have two sets of performance indicators, then: one that has to do with the financial, and the other that has to do with the outcomes? Or are they somehow interrelated?

VAdm Ron Lloyd: As part of the departmental results framework, one of the things we have to land on is these new key performance indicators. We're going right through with all the various L1s in the organization. We're starting with a key performance question, and then we're using a logic model to then land on the key performance indicators. That is the manner in which we're going to approach that.

We then get a review of the logic models and what they believe are their key performance indicators, to make sure they map and align with what the deputy minister, the chief of defence staff, and the minister need to make informed decisions going forward. Then once we brief that, we will have landed on our key performance indicators going forward.

● (1720)

Mrs. Brenda Shanahan: Thank you.

Mr. Ferguson, is there anything you would like to add? Are there any observations you have about what should be performance indicators?

Mr. Michael Ferguson: Well, we understand that sometimes measuring performance can be a difficult thing to do, and particularly in complex businesses like National Defence and the Canadian Forces. It can be a difficult thing to do, and I encourage whatever progress they can make on that.

I think in terms of the report on the issue we raised, it was a very basic issue, which was that they had different measures for internal purposes than in their external. I think just making sure there is consistency between the information they're using internally to manage their operations and what they're reporting publicly on their performance is the base starting point. That was really the issue that we raised here.

Again, any progress they can make in measuring and reporting on their performance is a good initiative. It's not something I can really report on; we haven't audited it. The issue we raised here was a fairly fundamental one, and one that they need to get right, even with what they're doing right now.

Mrs. Brenda Shanahan: Okay, thank you very much.

The Chair: Mr. Christopherson, please.

Mr. David Christopherson: Thank you, Chair.

The time is quickly dwindling down. Let's stay with the deck. I think this is so key. I'm looking at page 18 where the Auditor General said.... We just talked about external and internal. I raised the question earlier, and I won't revisit that. That's all been dealt with, and you've committed to doing the internal too. That's the main thing we wanted to hear.

In terms of the external, in 7.66, this says:

> We examined whether National Defence managed contractor performance in accordance with contract requirements. We found that, in some cases, due to poor quality of its data, management did not have the information that would allow it to properly measure contractor performance.

I'm trying to get a sense of whether the external thing is done and working the way it should. This leaves the impression that you kind of set it up but there is still something there, or am I mixing something else, which is easily done?

RAdm Patrick Finn: We have set it up, but we still have work to do. I'll give you a few examples. As we operationalize all of this, it has to go out to all the bases, all the wings, all the deployed locations. When it comes to troops on the front line or ships at sea, which may go through periods without connectivity, you can imagine how much work we're giving them to do.

There are areas where we've set up what we think are really good contracts. We've negotiated with industry key performance indicators and performance pieces, only to find that, when we roll it out into the field and we have individual maintainers, we've increased their workload to an unacceptable level. As we operate these fleets for two, three, four years, at first it might be a training issue. What is it? What's occurring?

I, personally, have been to Petawawa, Trenton, and Halifax to meet with maintainers to talk about it. We could have a well-developed Ottawa-centered contract, but when we roll it into the field we might find that their expectation on the maintainers is too much. We're going back to those to see if we have to release our understanding of the key performance indicators for that contract and renegotiate it. There are areas we've set it up in, but the pipeline of information we've asked for can be too much for the maintainers.

Mr. David Christopherson: I'm going to go out on a limb. I've heard a lot of answers to a lot of questions I've asked, and, pardon the pun, but many times they are defensive answers. I'm liking the answers. What I'm liking is that I'm not hearing a lot of gobbledygook that I don't understand. When I hear this, it usually suggests that this is being done deliberately. We've all been there. I'm very impressed, I have to say, with the specificity of what you're doing, and the bringing in of external factors. It really sounds like you're actually doing it, as opposed to just trying to get through this meeting, which has been an ongoing problem for us. I may have to eat those words, but I have to tell you, deputy, that I appreciate it especially when you take your criticisms. Nothing drives us crazier than somebody who comes in and starts making up nonsensical defences for things. It's better to just say you were wrong, and fess up to it, and let's get on. I'm guardedly optimistic, but history slows me down from going any further than that.

On life-cycle costs, and I'm quoting from the report, “Treasury Board policy requires that a department’s investment plan take into account not just the acquisition of assets but their full life-cycle costs, including...costs...”. The office “found that the most recent National Defence Investment Plan from 2014 did not include full life-cycle costs for the six types of equipment we examined”.

I think you may have touched on this, but I'd like that closed. I gather you're now doing that?

● (1725)

Mr. John Forster: Yes, sir.

Mr. David Christopherson: Sorry, but maybe I could just ask...I mean, that wasn't so long ago.

Mr. John Forster: That's right.

Mr. David Christopherson: Really, you completely missed it again. We're talking about life cycle, and the Auditor General is telling us in the latest update that it doesn't look like it's in there. Help me understand.

Mr. John Forster: The Treasury Board policies on costing have evolved, even last year, and actually they match exactly where we've gone and are heading and have invested this year. The 2014 plan did not include life-cycle costs for all of our equipment. Some of that costing didn't include sustainment costs. In some of it we didn't make allowances for inflationary costs. There were a lot of holes, in my view, when I first looked at it. That's exactly why we made all the investments in changes to how we do our costing. Our next investment plan, which is due at the end of this year, will include all of those provisions.

Mr. David Christopherson: Thank you for that answer, deputy.

We're a bit past this, but it's the common-sense stuff that missed that makes me crazy.

For instance, we see in paragraph 7.33, page 11:

> Furthermore, when National Defence purchased a fifth Globemaster aircraft, its stated assumption was that it did not need additional personnel to support five Globemaster aircraft at the same flying level as the original four.... However, we found that acquiring the fifth aircraft increased the need for maintenance, requiring additional overtime to ensure the aircraft....

Like, duh, who the heck would say that we're going to add a fifth plane, but it won't cost anything? Who decided that this made sense, and how did they get there, and why did they have their job at the end of it?

The Chair: Mr. Finn.

RAdm Patrick Finn: Quickly, regarding the fifth, how we operate the C-17s is what's called three lines of tasking, so that at any given time we have three aircraft available for missions. As these aircraft start to age, the amount of time they have to be in maintenance increases, and there are larger maintenance activities. Looking forward at four, by virtue of overlap of heavy maintenance, we found ourselves in periods where we were going to have basically two-and-a-half lines of operation, which meant two.

From a strategic decision perspective, acquiring the fifth C-17 was to maintain three lines of operation. It was not the fact that we would have more maintainers, but that we would actually be rotating more aircraft through industry as they aged further. That was the rationale, and that's what occurred.

Again, there are periods where we don't always have two in maintenance, we have one, and we go from three to four, even with five. There are periods where, yes, the air force finds itself more aircraft, which it wants to use, I think, for good purposes. However, the rationale was that it took five to maintain three lines of operation. That was why we did that.

Mr. David Christopherson: Just the wrong assumption, right?

RAdm Patrick Finn: Well, there are big periods of time...In fact, we're approaching the point now where we have more aircraft going into heavy maintenance, so we will only have three at Trenton. The maintainers have the spares, have the ability to do it when they have three, so actually, creating the capacity for four, when pretty much on a go-forward basis there will only be three airplanes there, would equally be a problem, because, again, we'd be paying for too many maintainers for not enough aircraft if we did that.

The Chair: Thank you all for appearing before us today. I think everyone assumes that procurement and value for money spent in defence is a very tough one to track, whether it's in Canada, the United States, Australia, or around the world. Canadians and taxpayers also expect that we are putting in measures to maximize those types of efficiencies and certainties in order to find value for our money.

Thank you for coming. We'll be following up on this. If you leave here, and think you could have supplemented an answer, maybe you were cut off, and you would like to do that, we would encourage you to forward those answers. Our committee will be drawing up a report on our meeting today and on this study, so thank you for being a part of that and appearing.

Thank you, committee, for your good work.

The meeting is adjourned.