

Standing Committee on National Defence

Tuesday, December 7, 2010

• (1530)

[English]

The Chair (Hon. Maxime Bernier (Beauce, CPC)): Bonjour à tous.

We're going to start our Standing Committee on National Defence, meeting number 38.

[Translation]

Pursuant to Standing Order 108(2), we are going to continue our study on the next generation of fighter aircraft.

[English]

We have with us, from Eurofighter, Mr. Roman Kohler,

[Translation]

Vice-President of Political and Government Affairs, Aeronautics. Thank you, Mr. Kohler, and welcome.

[English]

We also have, from Alenia Aeronautica, Andrea Nappi, head of Eurofighter export, Alenia Aeronautica. *Bienvenue. Enchanté.*

We also have, from Cassidian Air Systems, Christian Worning, [*Translation*]

Eurofighter project test pilot. Thank you for being with us. [*English*]

I think it will be Mr. Nappi who will take the floor. You have ten minutes to make your presentation. After that, the members will ask questions of the witnesses.

Thank you for being with us this afternoon.

Mr. Nappi, you have the floor.

Mr. Andrea Nappi (Head of Eurofighter Export, Alenia Aeronautica): Thank you, Mr. Chairman.

Mr. Chairman, members of the committee, good afternoon.

My name is Andrea Nappi, and I'm here today to represent the supervisory board of the Eurofighter GmbH consortium, whose headquarters are based in Munich, Germany.

The shareholders of the consortium are Alenia Aeronautica, BAE Systems, EADS Germany, and EADS Spain.

I'm joined today by my colleague Mr. Chris Worning of EADS Germany, who is one of our test pilots and who has flown many

types of combat aircraft, and by Mr. Roman Kohler, who is Eurofighter's vice-president for government affairs.

I will begin by saying how grateful Eurofighter is for this opportunity to address the committee and to answer your questions about our Typhoon aircraft and about our interest in meeting the needs of the Canadian defence force. We have followed closely and with great interest the progress of the committee's current inquiry, not least so that we would be well prepared to provide you with the most helpful responses.

Although I recognize that the committee is generally familiar with these matters, I would briefly remind you that the Eurofighter socalled core nations are Germany, Italy, Spain, and the United Kingdom, and that these four countries have ordered 620 aircraft, of which 250 have been delivered to date. In addition, Austria has purchased and taken delivery of 15 aircraft, while Saudi Arabia has purchased 72 aircraft. There are now 16 operational Eurofighter Typhoon units operating in all climatic environments, including northern Europe, the Middle East, and the south Atlantic.

The Eurofighter Typhoon is currently a contender in competitive opportunities around the globe for a total of some 800 fast jet aircraft, and has performed outstandingly well in recent highly demanding evaluation trials. So this is a very real airplane, undertaking very real and demanding operational duties.

The Eurofighter Typhoon aircraft, which first entered operational service in 2004, has flown some 100,000 hours and will form the backbone of the Eurofighter nations' forces for at least the next 30 years. Eurofighter Typhoon is a modern, highly capable, highly agile multi-role twin-engine fighter, with a proven level of maturity and extensive growth potential. Unlike other fighters, Eurofighter Typhoon's advanced design features allow a comprehensive air-to-surface capability to be provided with no compromise to air-to-air effectiveness. The four partner nations are committed to an ongoing cycle of capability sustainment to maintain the aircraft's fighting edge throughout its operational life.

The aircraft makes extensive use of composites in the airframe, with only 15% of the surface comprising metal. Its EJ200 engines, combined with the aircraft's aerodynamics, allow it to cruise supersonically without the use of reheat for extended periods of time, even with a weapons load. A fully integrated avionics system, coupled with a lightweight helmet-mounted display, help to minimize the pilot's workload and maximize situational awareness, permitting fully effective single-seat operations in all weather conditions, day and night.

An integrated suite of advanced sensors provides for the detection, tracking, identification, and engagement of air and surface targets under even the most demanding conditions, and the aircraft is able to carry a wide range of weapons, mission-specific loads, and other stores.

The Eurofighter Typhoon has also been designed to be reliable and easy to maintain when operating from forward operating bases with limited facilities, and this gives extremely high levels of fleet availability and competitive life-cycle costs. You may not be surprised to hear, therefore, that we pay little attention to the fourthgeneration versus fifth-generation debate that seems to have become fashionable. We prefer instead to focus on delivering a mix of capabilities that not only meets our customers' requirements but also optimizes their chances of surviving the battle. This mix includes, for example, our super-cruise capability, extreme agility, sustained supersonic and high-altitude operations, fighter performance with a full missile load, integrated sensor fusion, network-enabled operations, low observability, and an ability to change roles in flight.

• (1535)

It is also worth underlining at this point that the Eurofighter Typhoon was designed from the outset to be fully interoperable at all times and in all circumstances with NATO forces. It would be more than able, therefore, to undertake NORAD operations in concert with U.S. forces. I would also observe that its twin-engine design makes it particularly suited to operating safely in Arctic conditions.

Perhaps I could also point out that the Eurofighter Typhoon meets all three of the key capabilities highlighted by General Deschamps as essential for the next-generation fighter—interoperability, sensors and data fusion, and survivability.

The Canadian defence force was first briefed on the Eurofighter Typhoon in 2004 by BAE Systems. Further intermittent contact with BAE Systems took place until 2008, during which time visits were also made to the Royal Air Force Eurofighter Typhoon operational base. During this period we and the U.K. Ministry of Defence provided limited amounts of data on the aircraft, and I have provided the clerk of the committee with French and English-language versions of summary documents that we previously provided to the Canadian defence force.

As I said, we are continually developing and optimizing the aircraft, so I respectfully suggest that a current assessment of the aircraft would require far more up-to-date and comprehensive data than has been previously provided. We would, of course, be delighted to offer such data, which would also be of much higher classification than the earlier data. The bottom line is that we are wholly confident that our aircraft would readily meet the high-level mandatory capabilities for Canada's next-generation fighter.

Aside from its wish to secure a cost-effective, leading-edge capability, we have been especially aware of Canada's determination to maximize the benefit of any acquisition for Canadian industry. I would like to highlight, therefore, that as a multinational collaborative venture we are used to sharing intellectual property and transferring technology, not just among ourselves, but with our extensive supplier base and our export customers. In addition, all four Eurofighter partner companies have outstanding track records in meeting industrial participation and offset obligations around the globe. Between us we have the ability to offer Canadian industry an unprecedented and unique level of access to key fighter technologies covering manufacturing, maintenance, repair and overhaul, capability development, and systems integration.

We can also offer opportunities and partnerships not just on the Typhoon aircraft, but on high-technology projects in every sector of the defence equipment arena, as well as in a wide variety of civil aerospace, communications, electronics, and space programs.

Eurofighter's shareholder companies have combined turnover in excess of 120 billion euros, and operate some 20 business units in more than 30 countries. The Eurofighter consortium is happy to work with Industry Canada and the regional benefit agencies to develop a bespoke, high-value industrial participation offering to Canada, meeting or exceeding the dollar-for-dollar requirement.

On the vital issue of sovereign control, Canada is a close and longstanding ally of all four Eurofighter partner nations, and the history of the defence trade between us demonstrates well our willingness to transfer the technology needed to ensure that Canada remains in charge of its own destiny.

I look forward to being able to answer the committee's questions, but before doing so I would like to offer you an invitation to visit Eurofighter's facilities in Europe and an operational Typhoon base, in order to gain a true appreciation of this world-class multi-role combat aircraft that matches so well the operational challenges faced by the Canadian defence force.

Merci beaucoup.

• (1540)

The Chair: Grazie, Monsieur Nappi. Thank you very much.

I will give the floor now to Monsieur LeBlanc.

Hon. Dominic LeBlanc (Beauséjour, Lib.): *Merci, monsieur le président.*

Gentlemen, thank you for coming this afternoon.

Mr. Nappi, thank you for your presentation; it was very thorough. I want to make sure that there's no misunderstanding. Two-thirds of the way through you said something that I want to make sure is on the record. I want to understand this clearly. You and your company and your colleagues have looked at a document that the Government of Canada prepared on high-level mandatory capabilities for Canada's next-generation fighter aircraft. You've seen that document. And you've seen the testimony of General Deschamps, who came before this committee some weeks ago and elaborated on these highlevel capabilities, including some elements he referred to in the Canada First defence strategy. You've seen that testimony.

Mr. Andrea Nappi: Yes.

Hon. Dominic LeBlanc: You're confident, then, that the Eurofighter, the aircraft that you've described to us, would meet all of those high-level mandatory requirements, if not exceed them. Have I understood that correctly?

Mr. Andrea Nappi: Correct.

Hon. Dominic LeBlanc: The other point I thought was important is the interoperability. We're being told that one particular aircraft, the F-35, is the only aircraft that offers advanced interoperability with the American air force and other NATO allies. Yet we heard from another company some weeks ago that the Americans themselves are using two different aircraft interoperably in different contexts. Just so there's no misunderstanding, in your view the Eurofighter is fully capable of performing interoperably with American air force planes or with those of other European allies.

Mr. Andrea Nappi: Yes, I can confirm that the Eurofighter Typhoon can operate with NATO forces. Italy and the U.K. are part of NATO, and all their assets have thorough NATO interoperable capabilities. The air forces of Italy and the United Kingdom have chosen to operate the Eurofighter Typhoon in the air-to-air role. That would leave the air-to-surface role to the JSF, to the F-35. For this reason, I'm pretty sure that the Eurofighter Typhoon will meet the NATO interoperability requirement. It's up to F-35 to show that they will meet the NATO interoperability requirement with the Eurofighter Typhoon, as this aircraft will be in service in two of the air forces of the NATO alliance.

• (1545)

Hon. Dominic LeBlanc: Some weeks ago some officials of the Department of National Defence told us of a number of simulation studies of different fighter aircraft done by the Canadian defence department. Do you believe the Canadian air force would have sufficient data on the Eurofighter to make an accurate assessment of your aircraft's capabilities? Are you satisfied that they have all of the details required to make a comparison, or is there some detailed information that may be missing?

Mr. Andrea Nappi: I'm not familiar with the level of detail that has been provided to the Canadian defence committee on the Eurofighter Typhoon. Given the time when this data was provided and the level of classification imposed, I'm led to believe that there are far more data required to make a sound assessment of the capabilities of the Eurofighter Typhoon, especially when we have to use simulation models like operational effectiveness. We stand ready to provide this documentation to the highest level of security clearance that is necessary.

Hon. Dominic LeBlanc: And to your knowledge, that hasn't yet been requested, or you have no information of that information in fact being requested by the Government of Canada?

Mr. Andrea Nappi: We have no information that such specific detail has been requested.

Hon. Dominic LeBlanc: Thank you. And I have perhaps a final question.

One of the issues, obviously, for many NATO or allied countries is the issue of affordability, both from an acquisition perspective and also from a long-term maintenance and operational perspective. A number of European countries are going through difficult budgetary constraints, as well as other partner countries. What can you tell us about the affordability of the Eurofighter, and the stability of the costs in terms of having an accurate sense of where the costs are and will be going forward?

The Chair: You have 30 seconds.

Mr. Andrea Nappi: I'll be very short.

Regarding the stability of the price, we have offered our core nations an average price on lots, and the lots were fairly sizable: 150 aircraft was the first lot, 236 was the second, and another 150 were purchased in the third lot. We are now thinking of trying to further reduce the price of the aircraft to make it more affordable to the core nations and potential export customers, so that these nations would have more funding to allow additional capabilities to be inserted on the platform—which, again, has significant growth potential to accommodate several more improvements, from the availability of new sensors to new capabilities, new weapons, and new missiles that may become available in the next decade or so.

Hon. Dominic LeBlanc: Thank you.

The Chair: Thank you very much.

I will give the floor to Monsieur Bouchard.

• (1550)

[Translation]

Mr. Robert Bouchard (Chicoutimi-Le Fjord, BQ): Thank you, Mr. Chair.

Thank you for being with us, Mr. Nappi. Welcome to your colleagues as well.

Mr. Nappi, if I understand correctly, your operating base is in Europe. I suppose that means that your fighter is designed and built in Europe.

Could you tell me which companies in Quebec and in Canada would be involved in building and equipping your fighter?

[English]

Mr. Andrea Nappi: Thanks for the question. It's very interesting.

Of course the core of the production and development of the Eurofighter Typhoon has taken place in Europe, but it's not only within the four core nations. We have several industries that are supporting the Eurofighter Typhoon, including France and other nations outside the core. And even outside Europe, there are companies participating in the Eurofighter Typhoon.

Of course Canadian industry would be more than welcome to participate in two elements of the future Eurofighter Typhoon, should Canada enter the program. These would include participation in the manufacturing of components and the final assembly line, because with the size of fleet Canada would need, it would be economically convenient to have a final national assembly line. We are already offering this capability to other nations where we are actively campaigning for the Typhoon—namely, Japan, India, and all of the nations where the size of the fleet would be in excess of 30 units. Then it's economically convenient to have a final assembly line in country that would also allow the local industry to familiarize itself with the aircraft, so they could support the aircraft well once it enters the local air force.

In addition to that, I said we had a progressive plan to introduce new capabilities to the product. Of course these capabilities are currently based on the requirements of our core nations and our export customers who are already part of the program. Should another country enter the program, then most likely they would have their own requirements. These would be additional to those already being considered by industry at present. For the development of these additional requirements, we would most likely rely on the support and help of local industry. This would include, therefore, a lot of transfer of technology and transfer of information on the product, which I think is a unique asset making the Eurofighter Typhoon different from most of the other platforms available in the world.

Just to give you an example, we are offering Japan the capability of integrating its own Japanese legacy weapons into the Eurofighter Typhoon, with the capability of doing that in an independent way from European industry.

[Translation]

Mr. Robert Bouchard: Thank you.

If I understand you correctly, you provide a guarantee to any country that takes more than 30 of your aircraft that they will have an assembly line. Here in Canada, we need about 65 aircraft. Are you providing the same guarantee? How many jobs would that create? Do you have a rough estimate of the number of jobs that would be created? Would those jobs all be in the high-tech area?

[English]

Mr. Andrea Nappi: Clearly, I can guarantee we will be in a position to offer Canada establishing a final assembly line on Canadian territory, and 65 aircraft would be more than enough to make the establishment of a final assembly line in the country economically convenient.

As for the number of jobs concerned, the final assembly line in itself doesn't create too many jobs, because the process is quite automated. The number of people who actually work on the final assembly line is not what makes the difference. However, if we think about the number of high-level engineering jobs that can be created by the activities involved in integrating a specific weapon or a specific capability that may be required by the Canadian industry, this number would be very significant.

• (1555)

[Translation]

Mr. Robert Bouchard: Thank you.

[English]

Mr. Andrea Nappi: If I may add, Chris was correctly reminding me that the largest number of jobs would be in the in-service support field.

[Translation]

The Chair: Thank you very much.

That is all the time you have, Mr. Bouchard.

Mr. Robert Bouchard: Could I ask another question?

The Chair: No, your time is up. We also have to finish at 4:30 p. m., because we have other witnesses later.

[English]

Mr. Harris, you have the floor.

Mr. Jack Harris (St. John's East, NDP): Thank you, Chair.

Thank you, gentlemen, for joining us today.

I have a couple of specific questions. First, based on the earlier testimony, we've been told that the statement of operating requirements by the government for this aircraft was not finalized until the spring of 2010. I think you've seen this document on high-level mandatory capabilities, which was provided to this committee in September. I don't know when it was produced.

Was your company provided a copy of this statement of operating requirements or high-level mandatory capabilities as part of the discussion to see whether you could meet them? Has the Canadian government communicated with you about them since the statement was produced?

Mr. Roman Kohler (Vice-President of Political and Government Affairs, Aeronautics, Eurofighter): We learned of these high-level requirements when they were published, not before.

Mr. Jack Harris: In other words, you said you had some discussions in 2004 and 2008, but when Canada finally decided what its actual operating requirements were, it didn't consult with you as to whether you could meet them?

Mr. Andrea Nappi: No.

Mr. Jack Harris: My second question has to do with the United Kingdom having purchased these aircraft as part of this program. How many of these have they purchased?

Mr. Andrea Nappi: The exact number would be.... It's 40% of 620, so it's—

Mr. Jack Harris: Over 200.

Mr. Andrea Nappi: It's over 220. It's 232.

Mr. Jack Harris: Is 232 a good number?

So it's not 10 or 20, but they are a major part of the program.

Mr. Andrea Nappi: Oh, yes.

Mr. Jack Harris: I was interested in your comments.

The question I have refers back to your statement, Mr. Nappi, about how the RAF is using its Eurofighters for the air-to-air combat mission, and either reserving or using their F-35s as air-to-ground—

Mr. Andrea Nappi: It is their primary role.

Mr. Jack Harris: Their primary role would be air-to-ground.

As a test pilot, I presume, and someone who has some knowledge of these different aircraft and what they're designed for, is there a reason for that? We've been told that the F-35 is a multi-role aircraft and can do all these things. Is the Eurofighter better in an air-to-air role than the F-35? Do you have any idea why the British RAF would make these distinctions?

Mr. Christian Worning (Eurofighter Project Test Pilot, Aeronautics, Cassidian Air Systems): Thank you.

The design goal for the Eurofighter was really air supremacy. For modern BVR combat, as we see with the air supremacy airplane of the United States, the F-22, it is about speed, altitude, and weapons load, but it is primarily about the air-to-air role. It was always required. It is in the staff requirements of the four nations that the Eurofighter has to encompass the air-to-surface role as its secondary role. The design driver for the F-35 program was the other way around: it is primarily an air-to-surface airplane, its secondary role being air defence.

In terms of air defence itself, I am absolutely convinced that the Eurofighter is the superior airplane, surpassed only by the F-22, which is unavailable to all of us.

• (1600)

Mr. Jack Harris: Thank you.

In terms of interoperability, which is a question that comes up a fair amount, I'm not sure, to be honest with you, whether the interoperability of the F-35 is with only other F-35s or whether the interoperability of the F-35 is with all other aircraft, if you know what my question is. Would the F-35s the U.K. has, for example, be interoperable with the Eurofighter? Is that an issue? Is that something you can answer?

Mr. Christian Worning: Well, I know that it has been specified by the Royal Air Force, or by the MOD U.K., that the two airplanes must be interoperable with each other. In terms of data links, to my knowledge, there are some intra-flight data links that are used by the F-35s, but only when they communicate among themselves. For communication with the rest of NATO, so to speak, the systems that will be used are the same.

Mr. Jack Harris: We've also heard a fair bit about stealth in this committee. I don't know much about your aircraft, but it certainly looks as if your weapons, when they're attached, are attached to the outside. It was argued before the committee that the F-35 would have hidden weapons and would therefore be more stealthy, if that's a proper word.

You're a fighter pilot, so you'd presumably be concerned from that perspective about safety in flying. What do you have to say about stealth in this aircraft?

Mr. Christian Worning: Well, the very short answer would be, sir, that stealth is one of the attributes that leads to survivability. A lot of effort has gone into reducing the frontal radar cross-section, also, of the Eurofighter. But I underline that it's only one of the attributes. There are other means of increasing survivability, such as missile warning systems, towed decoys, electronic warfare, and of course performance and agility, particularly in the supersonic region. They are all building-stones towards survivability.

Mr. Jack Harris: Thank you, sir.

The Chair: Thank you very much, Mr. Worning.

I will give the floor to Mr. Hawn.

Hon. Laurie Hawn (Edmonton Centre, CPC): Thank you, Mr. Chair.

Thank you all for being here.

I want to pick up on one of the points just mentioned by Mr. Worning.

The Typhoon, I acknowledge, is an excellent point defence aircraft, and for a country the size of the U.K. or Italy or Germany and so on, obviously that's of primary concern. For a country like Canada, I would suggest to you that a point defence aircraft is less important than an aircraft that can operate over a wide area.

The U.K. is telling us that they are probably going to fly their Typhoons only until 2025 or 2030. Do you have any comment on that, and on how we would be interoperable? Because we're going to fly the next airplane we buy until probably 2050 or beyond.

Mr. Christian Worning: Sir, I don't have any knowledge about when the Royal Air Force is going to retire its aircraft. I believe the Eurofighter's going to fly in Europe for the next 40 years in most of those nations.

Hon. Laurie Hawn: The first Typhoon was 1980s technology. It first flew in the 1990s and was operational in 2004. What's your view of the growth potential of that aircraft in Canada's case, for 2050 and beyond?

Mr. Andrea Nappi: Although the design started with a NATO requirement in 1986 and became operational in 2004, the first tranche of aircraft, namely the initial 148 machines, was mainly dedicated to the air-to-air role, with only a limited air-to-service capability. With the second tranche, the current standard that is now being delivered, we have significantly increased the growth capacity, memory capability of the computers, speed of the computers to allow the new air-to-ground capabilities to be embedded and still allow a lot of growth potential for the new weapons and the new sensors that we, together with our co-nations, are planning to integrate.

We have already established a program whereby, on a two-year basis, we have a package of capabilities to be released in service. We already have contracts for capabilities to be released in 2012, 2014, and we're about to discuss the requirements that would be integrated into the program in the years after.

• (1605)

Hon. Laurie Hawn: Would you be offering Canada the tranche two airplane or the tranche three airplane?

Mr. Andrea Nappi: Virtually there is no difference in terms of hardware except from the progressive cure of obsolescence. In terms of capability, there is no difference between tranche two or tranche three aircraft. Of course, all newly built aircraft will have to be tranche three.

Hon. Laurie Hawn: The tranche three aircraft has the electrically scanned radar, correct? That's had about five flights so far.

Mr. Andrea Nappi: The current standard of the aircraft does not have electronic scan radar. However, we have already started a program for developing and integrating an in-scan capability on the Eurofighter Typhoon, and the plan is to have this capability in the fleet by 2015.

Hon. Laurie Hawn: Has any country bought or paid for or developed or committed to buying a tranche three aircraft yet?

Mr. Andrea Nappi: No, there is no formal commitment from any of the nations on in-scan radar. The initial study is being funded by industry, and we have a commitment to make progress on the activity on industry funds for a good part of 2011, when the nations will, I hope, have a common requirement for an in-scan radar capability to be integrated on the Eurofighter Typhoon.

Hon. Laurie Hawn: You talk about stability of the price of the Typhoon. What's the fly-away cost of a Typhoon today?

Mr. Andrea Nappi: We are not in a position to comment here, because this is commercially sensitive data.

Hon. Laurie Hawn: Would it be fair to say that, plus or minus, it's in the 120 million euro area?

Mr. Andrea Nappi: The fly-away price? That's far too high.

Hon. Laurie Hawn: How far too high?

Mr. Andrea Nappi: Far too high-more than 10%.

Hon. Laurie Hawn: We do have information, sir, and it is not far from that.

Mr. Andrea Nappi: We're talking about the fly-away price, not system price.

Hon. Laurie Hawn: No, I understand.

Do you want to talk about stealth for a second? We talked about that.

Mr. Worning, as I said, Billy and Ricardo pass on their regards, something about ice-cold aquavit and room temperature raw fish. I don't know what that means.

In any event, in looking at that airplane, it looks pretty clean until you look at the intakes. What role does the front face of the engine play in terms of radar reflectivity?

Mr. Andrea Nappi: I can respond to that, because in my early days as an engineer I was working on this very subject. The duct is shaped to avoid direct view of the engine. This is one element. We have provisions for allowing the insertion of radar-absorbing material in the duct so we could further reduce the signature of the engine. We also have the mechanical provisions to insert a vane that would split the duct to further reduce the visibility of the front end.

Hon. Laurie Hawn: I want to turn to the other picture in your book here, with a fully loaded Typhoon with all the external stores, which, obviously, to do a mission you would need to carry. That doesn't look very stealthy to me.

Mr. Andrea Nappi: Well, as Chris was saying before, what you really want is the survivability of your aircraft, because of the money costs, because of the life it carries, and all sorts of reasons. The survivability is the result of observability, so low observability, but also the capability to escape once you have been detected.

• (1610)

Hon. Laurie Hawn: That's not very low observability.

Mr. Andrea Nappi: And relying only on the low observability may be a fatal mistake.

The Chair: Thank you.

Thank you very much, Mr. Nappi.

I will give the floor to Mr. Wilfert.

Hon. Bryon Wilfert (Richmond Hill, Lib.): Thank you, Mr. Chairman.

Thank you, gentlemen, for coming.

So that I'm clear, on the high-level mandatory requirements, you said you could meet all of the DND requirements, and if there had been a competition, you would have been able to compete based on those requirements.

Mr. Andrea Nappi: Confirmed.

Hon. Bryon Wilfert: You were never formally ever asked by DND, by the government, at any time to provide any information that would help them in their decision-making?

Mr. Andrea Nappi: We have never received a formal request for information, not to mention a request for a quotation.

Hon. Bryon Wilfert: So what I hear from that is that contrary to what the government has been saying, there was no formal competition, and the F-35 is not the only plane on the market that in fact could meet the requirements that this country needs. You have indicated very clearly today that you could meet those requirements.

Now, the F-35 has been rumoured to be around \$92 million. We see the vice-chief of the Joint Chiefs of Staff in the United States, Marine Corps General James Cartwright, indicating that in fact they're relooking at whether or not the Marine Corps can afford it. The prices are far too high. They have now said, because the British have decided to look at a different variant, that they may in fact do so as well. So that would seem to me to offer opportunities for your company and others to be out there. So whether the F-35 ever takes off the ground is questionable.

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But the key thing we are looking at, as the official opposition, is whether or not there is an open, fair, transparent competition, whether anyone else is in the market. If there's only one in the market, so be it. But your testimony today seems to clearly underline, both in terms of the requirements and the needs of Canada, that you can meet all of those.

I guess the question is whether there any reason that, in your view, you were not approached, given the fact that you have a history and that you have, obviously, an aircraft out there that can meet these requirements.

Mr. Andrea Nappi: Unfortunately, we are not the right party to respond to this question. You should raise the question with those who have not raised the issue with us. We are ready to respond to any RFI or RFQ we receive. We have responded to many of those, including countries where you may say we would have a very limited possibility of competing, and we are ready to support any clear and transparent acquisition process by any country.

Hon. Bryon Wilfert: And are you prepared to offer guaranteed industrial benefits equal to the total value of any contract we would sign?

Mr. Andrea Nappi: That's in our DNA, I should say.

Hon. Bryon Wilfert: It's a pretty good DNA.

All right, thank you.

I think Mr. Dryden has a question.

Hon. Ken Dryden (York Centre, Lib.): When you were questioned before, Mr. Hawn asked a couple of questions and then offered answers. In terms of the greater appropriateness of this aircraft for more point to point as opposed to a broader scale, and also in terms of the significantly greater cost, I'd like to ask you this. Even if you're not able to offer exactly what that cost is, knowing what you know—what the cost is of the F-35—are you saying you can match that cost on the one side of it, and on the other side of it the appropriateness for Canadian needs, as Mr. Hawn outlined?

The Chair: Respond briefly, please.

Mr. Andrea Nappi: As I've said, I can only comment on the cost figures for the F-35 that I have read in the literature. It's clear that we can match and significantly improve those figures with the Eurofighter platform.

Hon. Ken Dryden: I have a question to-

The Chair: You don't have any time.

I'll give the floor to Mr. Braid.

• (1615)

Mr. Peter Braid (Kitchener—Waterloo, CPC): Thank you, Mr. Chair.

Thank you to our witnesses and to Mr. Nappi for being here this afternoon.

Mr. Nappi, you described a scenario in which Canada could establish an assembly line for the Typhoon here in Canada. Have you offered that arrangement to any other countries, and if so, which ones?

Mr. Andrea Nappi: We have offered the final assembly line already in two competitive tenders that we are currently participating

in, namely those with Japan and India. We were offering this to Greece in the early days, when this was an active campaign, before the difficult economic situation of Greece that now is putting this campaign aside a little bit. We were offering it to Turkey as well.

Mr. Peter Braid: Have any of these countries taken you up on the offer?

Mr. Andrea Nappi: For Turkey, the offer has not been formally taken up by the country. We are still discussing and promoting the campaign, so there is no formal requirement from Turkey in that sense. But with Japan and India, where formal competitions are currently under way, we have put it in our proposal. It was actually a firm requirement from India and Japan to have this capability.

Mr. Peter Braid: With respect to India, then, India is currently in the midst of a competition, and they're considering the Typhoon. What other aircraft are they considering?

Mr. Andrea Nappi: We are competing for what is called the MMRCA; that's "medium multi-role combat aircraft". Today there are six contenders.

Mr. Peter Braid: How many aircraft would India be interested in purchasing?

Mr. Andrea Nappi: The current requirement is for 126 aircraft plus an option for another 63.

Mr. Peter Braid: Okay.

What industrial benefits would India reap from an arrangement with Eurofighter?

Mr. Andrea Nappi: They have a very strong requirement for licensed production. The last tranche, of 62 aircraft, would reach a level of 60% of the total weapon system manufactured by local industry.

Mr. Peter Braid: Did you say 60%?

Mr. Andrea Nappi: Yes.

Mr. Peter Braid: Okay.

Mr. Andrea Nappi: That's a requirement.

Mr. Peter Braid: That's India's requirement?

Mr. Andrea Nappi: Yes, it's India's requirement.

Mr. Peter Braid: What timeframe is there for this particular competition in India?

Mr. Andrea Nappi: The prediction in that respect is quite difficult. We have experience from the Hawk acquisition, which took a very long time. What I can say is that we made the formal offer in 2008, and it had two years' validity. Within those two years we had a lot of discussion, assessment, and flight evaluations, but this was not enough. All six contenders had the opportunity of submitting a new offer this year with validity for another two years.

I reckon that the competition will last potentially for another 18 to 24 months. The current requirement is for having the first aircraft in India beginning in 2015.

Mr. Peter Braid: Thank you.

The Chair: Thank you very much.

I will now give the floor to Monsieur Bouchard.

[Translation]

Mr. Robert Bouchard: Thank you, Mr. Chair.

I would like to go back to the economic benefits. If Canada chose your company, would you be willing to include a guarantee in the agreement providing economic benefits equal in value to the contract?

Suppose the value of the contract were \$7 billion, would your company be willing to guarantee \$7 billion in economic benefits to Quebec and to Canada?

[English]

Mr. Andrea Nappi: The answer is yes.

Maybe you can comment on the recent declaration by Austria. • (1620)

Mr. Christian Worning: Austria was our launch export customer, and they received an offset of 200% on their airplane. Most of it has been realized already.

Mr. Roman Kohler: A couple of weeks ago the Austrian government accepted \$2.3 billion in offset requirements from the Eurofighter consortium. There's more to come. This is for a 15-year contract.

[Translation]

Mr. Robert Bouchard: Thank you.

One of your competitors has stated that they plan to build between 3,000 and 5,000 fighters. Your presentation mentioned 800. Is that the number of aircraft for which you have signed contracts? You mentioned 232 planes for the United Kingdom, and you mentioned planes in India. But how many planes are you committed to building and how many would you like to build?

[English]

Mr. Andrea Nappi: We have 620 aircraft ordered by the core nations, out of which 232 are for the U.K. and 129 are for Italy. Apart from this 620, we have 15 aircraft already delivered to Austria. We have 72 aircraft being delivered to Saudi Arabia. This brings the total to over 700. We are competing in other markets for an additional 800. I mentioned the 126, plus 63 for India. There is a requirement of 50 aircraft for Japan. There is a requirement for 48 aircraft in Romania. There are requirements of 22 to 33 aircraft in Switzerland. And there are other requirements in other nations in Europe. There is a requirement now emerging from Korea, where we are actively promoting the Typhoon. We've been active in Brazil. This 800 is a rough figure of potential export requirements. Malaysia is another potential customer.

The Chair: Merci.

I will give the floor to Mr. Boughen.

Mr. Ray Boughen (Palliser, CPC): Thank you, Chair, and welcome, gentlemen.

When we look at all the countries that are purchasing aircraft, we find that the majority of those countries are purchasing the F-35. For several years it has been classified as the fighter of this century and the next century. It meets the requirements at a lower cost than most other aircraft being produced. Can you tell me why this picture doesn't sit well with other countries? It seems to me that this is the

aircraft of choice, as attested by ten countries locked into that operation.

Mr. Christian Worning: The airplane is not quite finished yet, and it hasn't actually been sold in that many numbers. We know the business case. We know the numbers that are being told to us. Currently, I think we're talking about a few hundred airplanes. The U.K. has bought one or two. Holland has bought one. Those are the F-35s that have really been sold. We are all waiting anxiously to see how that program goes on. I think it would be wrong to say that they've already sold 3,000 airplanes.

Mr. Ray Boughen: It looks as if the sales may range from 3,000 to 5,000 aircraft, from what we've been told.

I'd like to pick up on a question of cost. In 2007 you sold Saudi Arabia 72 aircraft for \$8.86 billion. That would come to about \$123 million per aircraft. Last week we were told that the F-35 would cost \$70 million to \$75 million per aircraft in 2010 to 2002 dollars. So we're looking at \$70 million or \$75 million for the F-35 and \$123 million for the Eurofighter. There seems to be quite a discrepancy in cost there.

Can you tell us about that?

• (1625)

Mr. Andrea Nappi: I cannot comment too deeply on the Saudi acquisition, because this was a government-to-government acquisition made by the U.K.

We as industry made our offer to the procurement agent of the U. K. government, and we really don't know what the final offer of the U.K. to Saudi Arabia consisted of. They may have added a lot of things on top of our basic aircraft that we are not aware of.

Mr. Ray Boughen: With all due respect, you're talking government to government when you talk about selling aircraft to Canada. You were saying you couldn't reveal dollars because you were talking—

Mr. Andrea Nappi: No, no.

Mr. Ray Boughen: —about country to country. I'm saying to you that you're talking to us, and that's country to country.

Mr. Andrea Nappi: The acquisition for Saudi Arabia was quite a peculiar one, because it was government to government. We only know part of the story, from an industry perspective.

In other competitions—and in particular those in Japan, India, Turkey, Romania—we are acting as the contractor of the product. The contract will be between Eurofighter GmbH or one of the partner companies and the local government.

The Chair: Thank you very much.

I will give the floor to Mr. Dryden.

Hon. Ken Dryden: Just to reiterate things that I think you have said and then to ask about some other things, insofar as an apples-to-apples cost of the Eurofighter and the F-35 is concerned—and not on a government-to-government, but on an equivalency basis, and on the base airplane—what you have said is that you would be able to meet that cost, if not better it. Is that correct?

Mr. Andrea Nappi: That's correct.

Hon. Ken Dryden: You also talked about industrial benefits and said that you are willing and able to guarantee at least 100% in terms of industrial benefits, and that this would be a guarantee. Is that correct?

Mr. Andrea Nappi: It is correct, but I may add one element. When we talk about industrial return, we have to differentiate between what we call "direct offset"—that is, on the program—or "indirect offset", which could be in any other industrial area: defence outside the Eurofighter program or elsewhere. And the 100% will cover all elements.

Hon. Ken Dryden: Right.

There are two other areas I want to talk about—I asked about one of these, but there wasn't the time for you to answer—concerning the appropriateness of this aircraft for Canada's purposes and the fact that the nature of the need for the U.K. or Germany would be different, because it's more point to point, whereas Canada's need is over a larger area.

How would you respond concerning the appropriateness of the airplane?

Mr. Christian Worning: Certainly one element that I would look at is the element of safety in a two-engine design.

The other element is that because of the layout of the aircraft, we are looking at an airplane that has about the same internal fuel fraction as an F-22, in its air defence role when the airplane is clean. If we put extra fuel tanks on the airplane—they are supersonic fuel tanks, and the airplane will fly at Mach 1.8 with three tanks—we're now looking at the same fuel fraction as an F-35.

So I don't think you would see any big differences in the spectrum or the ranges and endurance that we could cover.

Hon. Ken Dryden: I want to go back to the stealthiness. You were making the distinction that in fact the questions that were asked were about how stealthy this airplane is and that what you were saying is that stealth is part of survivability.

I'd like to hear again why in fact the stealthiness is not all that we should be worried about, and that in fact it is the overall survivability that is the real issue.

• (1630)

Mr. Christian Worning: That is certainly what we believe. As I said, stealth is one of the contributing factors that you have, but there are other things you need to look at.

We believe that the amount of stealth we are looking at in the F-35 design will delay detection but will not prevent it, and that at the point of detection you will then need other means to ensure survivability of the platform.

Hon. Ken Dryden: Thank you.

The Chair: Thank you very much.

I will give the floor to our last member. Mr. Hawn.

Hon. Laurie Hawn: Thank you, Mr. Chair. I just want to pick up on a couple of those things.

Mr. Worning, how much internal fuel does the Eurofighter hold? **Mr. Christian Worning:** Well, it's 30%, but it's about five tonnes. Hon. Laurie Hawn: The ballpark...10,000 pounds? Okay.

Mach 1.8 with three tanks...for how long?

Mr. Christian Worning: I have done above Mach 1.6 for a total of 15 minutes with three tanks on, but that was with heavy manoeuvring in between.

Hon. Laurie Hawn: And then, obviously, when you plug in the burner it doesn't last very long. We know that.

We want to talk about cost for just a second here as well. The cost comparison, I believe, Mr. Nappi, you referred to is your assessment of what you're hearing through the media—the cost of the F-35, which is a U.S. aircraft, not our aircraft. The cost we're talking about is \$70 million to \$75 million per aircraft in 2016 dollars.

Are you saying you could beat that price in 2016 dollars?

Mr. Andrea Nappi: What price?

Hon. Laurie Hawn: Between \$70 million and \$75 million U.S., in 2016 dollars.

Mr. Andrea Nappi: I haven't said that, but-

Hon. Laurie Hawn: No, I'm telling you that. That's the price it would have to be.

Mr. Andrea Nappi: No, the number you said before was much higher than this.

Hon. Laurie Hawn: That's the price you would have to beat. Can you beat that price, in 2016 dollars?

Mr. Andrea Nappi: I cannot confirm it now, but we can work on it.

Hon. Laurie Hawn: Fine, I'll accept your answer.

When we talk about final assembly in Canada, you talked about it being economically attractive. I'd have a hard time, as a Canadian company building a factory, to do final assembly on 65 airplanes and then close the doors. I don't think that's very economically feasible.

How do you square that?

Mr. Andrea Nappi: You don't finish your activity on the aircraft once you have completed assembly of the 65 aircraft. You will have maintenance overall and scheduled maintenance at 400 and 800 hours, with that interval. That will require basically the same tooling and the same industrial capabilities that are required to manufacture the aircraft. Also, for the insertion of new capabilities, this normally comes as a software load, but most likely they require some hardware changes as well, and you need to be prepared for that.

Hon. Laurie Hawn: Mr. Worning, can you talk about the structure of the aircraft a little bit? What kinds of advanced materials are we talking about with the Eurofighter?

Mr. Christian Worning: It has a very high amount of composites. The CFC is, in weight, over 50% of the airplane. It's about 90% of the surface of the airplane.

When you talk about the structure, it's important to know that the safety factor that is required for European certification is a factor of three. For the 6,000 guaranteed and inspection-free hours that we have given to our customers, the airplane needed to be tested for 18,000 hours. Using the American system, that would be equivalent to 9,000 flying hours, with the usage spectrum that has been specified, which is very high.

Hon. Laurie Hawn: In the manufacture of the aircraft, obviously it started to be manufactured quite a long time ago, with respect to the advanced materials—I'm getting to stealth here—with the way the aircraft was manufactured, the panels, the seams, and so on. There have been a lot of developments in the last five or ten years, long after the Eurofighter started to be built.

Has Eurofighter been able to take advantage of any of those advanced methodologies of materials, blending, and so on, with respect to enhancing stealth?

• (1635)

Mr. Andrea Nappi: We have designed the Eurofighter with a number of radar cross-section reducing measures. We have locally inserted some material, some shaping to reduce the front radar cross-section of the aircraft.

We can do more. We have provisions for adding additional material; however, this would significantly penalize the performance of the aircraft. In the equation, we were referring before to survivability being the product of the capability of not being detected and the capability to survive or to escape once you have been detected. We reckon our design has been optimized to achieve the best possible survivability.

The Chair: Thank you very much for being with us. *Merci beaucoup*, Mr. Kohler, Mr. Worning, and Mr. Nappi.

[Translation]

We are now going to suspend the meeting.

[English]

We'll suspend for two minutes and come back with witnesses from Saab.

(Pause)

Merci.

• (1635)

• (1635)

[Translation]

The Chair: We now continue our 38th meeting.

[English]

Welcome to our witnesses from Saab. We have with us Monsieur Ogilvy, vice-président, *ventes et commercialisation internationales*, Saab Gripen Marketing—Business Area Aeronautics; and Mr. Peter Ringh, *directeur technique*. Thank you for being with us.

You have the floor. You can do your presentation for the first ten minutes and after that members will have the floor for questions.

Mr. Antony Ogilvy (Vice-President, International Sales and Marketing, Saab Gripen Marketing, Business Area Aeronautics, Saab): Mr. Chairman, ladies and gentlemen, thank you and good afternoon. Thank you also for the chance to present a short overview of the Saab Gripen next-generation fighter.

My name is Tony Ogilvy. I look after international marketing for Saab aeronautics. My colleague is Mr. Peter Ringh, who is a technical director on the Gripen program. Mr. Patrick Palmer runs our Saab operation here in Ottawa as the executive vice-president for all operations.

By way of introduction, Saab is well established here in Canada. We have key technologies in service in the Canadian army, navy, coast guard, air force, and universities. The Gripen is in service in five nations and has flown over 1,400 flight hours. We are active in many competitive fleet replacement programs all around the world, most notably in India and Brazil. The aircraft itself is a multi-role fighter. It is super-cruise-capable and combines exceptional range of endurance un-refueled, with the most powerful close- and long-range missile armament in service today. It operates from very short strips. It needs only 800 metres of virtually any available surface to allow maximum payload operations. No other fighter can do this. Also designed into the aircraft is on-demand maintenance. Basically, if it is working, we leave it.

Turning to the capabilities, from the high-level mandatory documentation we have seen, Gripen, in our opinion, will meet and in many cases exceed all operational requirements of the Canadian air force in all roles by day and night. With regard to range and endurance, Gripen can fly farther and stay airborne longer than any of our competitors' aircraft. As an example, un-refueled, it has a range of 4,000 kilometres. That's from Goose Bay to Inuvik. On full alert, the aircraft can be airborne in less than 60 seconds. A turnaround in the field in air-to-air role will take just under ten minutes. And a hot-engine change in the field takes less than an hour.

Gripen is fully operational within NATO, and fully interoperable with our NATO allies. As to Arctic operations, the Swedish air force operates one of its three Gripen wings in a location farther north than Alaska, so we are well versed in extremes of temperature, because we have operational aircraft in service in all climatic zones worldwide.

Turning to weapons, Gripen next-generation has ten external store stations. It is capable of carrying a payload of eight tonnes and a wide range of short- and long-range precision weapons with full NATO interoperability. We will, however, integrate any weapon that you require. If we can carry it, we'll integrate it. It is currently the only aircraft in the world that can carry and fire the most powerful beyond-visual-range missile currently in service, the Meteor, and that is a testament to the level of technical superiority of our latest software standard. We employ a balanced survivability concept with very low audio, visual, radar, and infrared signatures, plus an extensive suite of onboard integrated defensive aids. Gripen has for decades matured a highly sophisticated interflight data link that complements the widepicture information incoming from Link 16. This local data link allows Gripen to share total situation awareness while operating in emission silence, which greatly enhances survivability and maximizes the chances of full mission success.

Future growth is built into the design concept. Gripen is designed to meet the demands of all future threat scenarios, and to remain in active operational service for 8,000 flight hours, which, at an annual flying rate of 170 hours a year, is about 40 years of service.

With the current procurement schedule, Saab can confirm deliveries to Canada of the Gripen NG in 2016.

Much is made of fighter aircraft generations. What is fourth, what is fifth, what is four and a half? In our view, if a fighter is equipped with the latest AESA radar and has total sensor fusion and the ability to distribute the data as needed to pilots and to off-board agencies, if it has a balanced survivability concept through very low signature management and is super-cruise-capable, that's a fifth-generation aircraft. And that's what Gripen NG is.

• (1640)

Now I'd like to briefly outline our pricing and key cost data for you. These figures are approximate and are based on in-year Canadian dollars. The acquisition price of one Gripen, the fly-away price, is about \$55 million. That depends on configuration, but that's a real number.

The other critical financial issue for any nation operating this aircraft is the cost per flight hour over the aircraft's full life cycle of about 40 years, the in-service support cost. The figure we use is not produced by Saab but comes from a wholly independent source, the Swedish air force, which monitors very precisely all of the criteria to come up with the in-service cost figure. The in-service cost per flight hour for Gripen is between \$4,000 and \$4,500 in Canadian dollars. So for a full fleet of 65 Gripen NG, the cost per year would be between \$44 million and \$50 million Canadian for a full fleet of 65 aircraft.

If you take round figures, in terms of acquisition and in-service costs, a fleet of 65 Gripen NG will cost you just under \$6 billion Canadian. That's about \$3.75 billion Canadian to acquire the aircraft, and \$2 billion to operate them over 40 years, or just under \$6 billion for the whole package for life.

In the wake of the recent global financial crises, we all know that most nations are now moving to adapt to new economic realities, particularly in the mature western economies. We see this first-hand in our export markets. We see it all the time as many countries rapidly overhaul their procurement strategies. For many of the countries I work in, traditional defence procurement is a thing of the past. It's into this new environment that we believe Gripen NG can offer exceptional capability at minimum cost.

We also recognize that Canada is very closely involved as an export customer in the JSF program. Now, we obviously wish to enter a full and open competition to meet 100% of the requirement for the future Canadian air force, i.e., for all 65 aircraft. Should this

prove too complex, we would offer for consideration a fighter fleet of JSF and Gripen, as an option. I can assure all those who balk at this proposal that Gripen has an extremely low support footprint, which would require minimal change to existing Hornet facilities. Further, the Gripen can integrate fully with the F-35. After all, that is what NATO has striven to achieve with its allies.

Such a combined fleet would provide for a balanced and very highly capable air force, a very formidable defensive and offensive mix, a strategic strike fighter in the F-35 and a tactical multi-role fighter in Gripen NG. Gripen would be able to fully exploit the extreme range of the Meteor missile to maximum effect in the defence of Canada's vast airspace and Arctic regions. Gripen would also be available to conduct those operations where JSF is not best suited and where the command would simply not wish to commit. Close air support of troops in the field is a classic example where a highly manoeuvrable and very agile fighter like Gripen is far more suited than the heavier and more cumbersome F-35 strike aircraft.

The two-seat version of Gripen is a fully operational aircraft and is well suited to additional roles, such as tactical formation lead in intensive high-threat environments and long-range search and rescue. With in-flight refueling, the aircraft will stay airborne as long as the pilot can stay awake.

In addition to the huge and real cost savings it offers Canada, Gripen will bring very significant and tangible benefits to the Canadian industrial base through full technology transfer and longterm development in partnership with Swedish companies in the defence sector and, if required, the non-defence sector, through the investor group. We offer full offset through the mutually beneficial industrial cooperation IRB program, and we have an unrivalled record in delivering what we commit to—and on time.

Companies may offer the transfer of technology when they actually mean a build or assembly process where the transfer of technology is actually minimal. Saab will transfer all—and we mean all—technologies required by Canada, including all source, single first-line code data. This will enable full national and functional control to be exercised over every element of the aircraft's offensive and defensive systems now and in the future.

• (1645)

We own those technologies in Saab systems. We give them to you and we give you every possible assistance in terms of software, support code, and transfer code to enable you to do the job yourself. We feel it's essential for Canada to have total control of the key software technologies, such as electronic counter-measures, your threat library, etc. Only you can have those controls—nobody else.

The transfer we offer will be hands-on, to fully enable Canada to build on its outstanding national capabilities in software development, which you already have in this country, and to fully enable sustainable engineering to be conducted here in country so you can update your aircraft to your own requirements. We would back and fully support all of these ventures from Sweden, as you require. We have this model under way in South Africa, where they run their own software, and have achieved great success in precisely this development program.

Saab recognizes and supports solutions for Canada that provide a manageable and reliable acquisition, long-term sustainability and support in Canada, for Canada, by Canadians. We believe that the Gripen NG fighter, in service with the Canadian air force, would significantly strengthen Canada's independent capacity to defend national sovereignty and security, provide exceptional industrial benefits and real technology transfer, and save you billions of dollars—and we mean billions.

We would also like to invite all of you, ladies and gentlemen, to come to Linköping, our base in Sweden, and look at the aircraft. Take along a screwdriver, take a forensic look at what we're actually offering, and allow yourselves to make your own decisions on what you see. All we ask is for the chance to properly demonstrate our capability to Canada and the Canadian air force, through an open and competitive process.

Thank you.

• (1650)

The Chair: Thank you very much, Mr. Ogilvy.

I will give the floor to Mr. Wilfert for seven minutes.

Hon. Bryon Wilfert: Thank you, Mr. Chairman.

Thank you, gentlemen, for coming.

You ended on the very statement that we have been saying for months, as the official opposition, and that is a fair, transparent, and open competition. The taxpayer watching these proceedings today would really wonder. The government says there has been competition, in fact, and both you and the previous Eurofighter presenters indicated very strongly that you can meet the requirements as outlined in the high-level mandatory capabilities of Canada's next generation as outlined by General Deschamps, I believe before this committee on October 28. Both you and Eurofighter have indicated you can do it for either similar or less cost. You're both prepared to guarantee economic benefits, industrial benefits for this country.

I realize that this is a very cut-throat operation in terms of international competition. You may suggest to me for my first question that I should ask the Norwegian government, but I'm curious. There is a published report that recent American memos indicate that Saab could have been treated unfairly in competition for the replacement of Norway's F-16s because the American government withheld radar technology for the Gripen until the Norwegian competition was complete. Do you believe that withholding this vital technology had any effect on Norway's decision with regard to the F-35s?

Mr. Antony Ogilvy: We could speculate that that would have a material effect, but it is a media speculation, so we actually disregard it and try to back ourselves away from speculative comments that are not issued by a national government. This is a leak, so we back ourselves away from it and we'd offer no comment.

Hon. Bryon Wilfert: The memos told us that Saab dominated the industrial participation aspect of the Norwegian competition. I understand that when your company put a bid for the replacement of the Netherlands' F-16s, press information documents from your company published on August 25, 2008, said that Saab is prepared to offer industrial cooperation to at least 100% of the total value of the possible contract, which would generate economic benefits and employment within the Dutch high-tech industry. Again, for the record, so we're very clear, is your company prepared to guarantee those industrial benefits to the same amount, if not more?

Mr. Antony Ogilvy: We are indeed, sir, to the same amount, if not more. We expect a minimum of 100% in terms of offset.

Hon. Bryon Wilfert: Would that include maintenance, industrial support costs, or simply the acquisition costs?

Mr. Antony Ogilvy: That's based on the acquisition costs contract, but thereafter the sustainable engineering is very much part of the industrial package we would engineer with you in partnership. But the actual offset liability is normally determined based upon the acquisition contracts.

Hon. Bryon Wilfert: Mr. Chairman, when you listen to your testimony and the previous testimony, and we've listened to Boeing and Lockheed Martin, they obviously raise more questions than answers. Obviously the question is, given what has been presented by all the companies—and they've all made excellent presentations—what is wrong with having a fair, open, and transparent competition for something that is in Canada's national interest? We obviously need new fighter aircraft. We all agree. We all agree we want to have the best possible price. We want to have the best economic benefits for Canadian industry, and we want to ensure that we're able to afford it, given the fact that we have a significant national deficit at the present time.

You said you could meet or exceed anything the F-35 could produce. One of the things you pointed out, which I thought was interesting, was the range—4,000 kilometres. You could go, in fact, from Goose Bay to Inuvik.

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• (1655)
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Mr. Antony Ogilvy: Yes, sir.

Hon. Bryon Wilfert: And that is particularly important over the Arctic.

Mr. Antony Ogilvy: Indeed.

Hon. Bryon Wilfert: Could you just indicate again how many aircraft you have operating in similar conditions in Arctic weather around the world?

Mr. Antony Ogilvy: Currently we have one wing of Gripen operating in Sweden, in an area north of Alaska, actually in the north of Sweden, and there are 45 aircraft in that wing operating continuously in those latitudes.

Hon. Bryon Wilfert: So you have 45 aircraft in there continually. Okay, thank you very much.

Again, sir, when the requirements were put together by the government, at any time were you approached for any information?

Mr. Antony Ogilvy: No, sir. I made an attempt to update the fighter procurement replacement office earlier this year, but that was not taken up.

Hon. Bryon Wilfert: Was any reason given as to why it was not taken up?

Mr. Antony Ogilvy: No reason was given, sir. There was a short sentence saying something about a technical issue. Basically they held us off.

Hon. Bryon Wilfert: They held you off. So I guess you were as surprised as the rest of us when the minister announced in July that they were going ahead, even though he had indicated a few months earlier in the House that in fact there would be a fair, open, and transparent competition.

Mr. Antony Ogilvy: We were.... I think surprised is not the right word, because nothing surprises us actually in this business.

Hon. Bryon Wilfert: We have the same business—we're never surprised either.

Mr. Antony Ogilvy: I would say, sir, that we had been hoping for an open and transparent competition all the way through, despite the very close relationship, obviously, on the JSF program, which was clearly evident to Canada. We still did hope very much for the chance to offer our product in a formal sense.

Hon. Bryon Wilfert: Have you ever come across any similar situation in which a government has taken this type of approach, in that they claim to be holding a competition but in fact you as one of many competitors are basically told not to show up?

Mr. Antony Ogilvy: No, sir.

Hon. Bryon Wilfert: This is a first.

Mr. Antony Ogilvy: Yes.

Hon. Bryon Wilfert: Okay.

Do you have a question?

Hon. Dominic LeBlanc: We'll yield our time.

The Chair: I will give the floor to Monsieur Bouchard of the Bloc Québécois.

[Translation]

Mr. Robert Bouchard: Thank you, Mr. Chair.

Welcome, Mr. Ogilvie, and thank you for being with us today. Welcome also to the colleagues you have here with you.

When you were talking about economic benefits, if I understood correctly, you said that, for every dollar of the purchase price, there would be a dollar in economic benefits. That's several billion dollars in benefits, given that we are talking about a contract worth several billion dollars.

I won't go over that again, because you have answered the question. But I would like to know which companies in Quebec and Canada you are partnering with, or which companies in Quebec and Canada could participate in equipping, designing and building your aircraft.

[English]

Mr. Patrick Palmer (Executive Vice-President, Head of Saab Technologies Canada, Inc., Saab): I have just a comment on the economic benefits. We will commit to 100% IRB. But more important than that is our technology transfer program—what we're willing and what we're able to do and what we need. As a Canadian taxpayer, I understand that our customers need complete control of their destiny as they move forward. The economic benefits to Canada will be far in excess of the IRB benefits to Canada, some of which are very hard to quantify.

When we look at the benefits to industry, we've had discussions with some industries in Quebec as well as in other regions of the country. At this time it's not right for me to mention the names of those industries. Obviously you can imagine that for the aerospace industry and some of the manufacturing industries, as well as some of the simulation and training industries and things like that, there would be huge benefits within Quebec as well as in other regions of Canada.

• (1700)

[Translation]

Mr. Robert Bouchard: You know the numbers, you read the media, you know the contract and you know how much has been allocated for the purchase of the 65 F-35s. Do you know how many jobs would be created if your company were chosen? Would they all be in the high-tech area or in operational areas, areas other than high-tech, that is?

[English]

Mr. Antony Ogilvy: I think we would prefer to look upon this as a transfer of very high-technology jobs into your industry rather than lower-technology manufacturing, but we would be very happy to discuss with all of your industries what you would wish.

Our belief is, and from our experience, countries would normally prefer to have the high-technology growth, and grown in their own countries. That's what our intention would be, sir. The jobs we would offer would normally start at high technology and go up from there, rather than high technology and down.

Mr. Patrick Palmer: If I could offer an amendment to that, or some additional information, the jobs would span both elements. The jobs would span the manufacturing environment, but what we're really concerned about are the long-term jobs and the sustainable jobs, and those are the high-tech jobs that will take this thing through sustainment for the next 40 years. So the benefits would obviously accrue to both industries.

[Translation]

Mr. Robert Bouchard: One of your competitors said that they could have orders for 3,000 to 5,000 aircraft. What number is your company looking at? What contract possibilities do you have at the moment? How many aircraft are you planning to design and build? Do you have an idea of the number?

[English]

Mr. Antony Ogilvy: We currently have 265 aircraft produced and in service. Our estimates are based on where we are operating in terms of campaign work in India and Brazil, Norway, Netherlands, Denmark, Malaysia, Switzerland. Our expectation is that we will take a market share to give us a total export buy of not fewer than 500 aircraft in the next ten years. We would look, therefore, to a total fleet size of approximately 750 Gripen NG over the ten-year period we're talking about.

[Translation]

Mr. Robert Bouchard: One of your competitors mentioned that there was a delay with their fifth generation fighter. Do you know of any delays with your fifth generation fighter and can you express those delays in years? Are you one year behind, two years, three years, five years? I would like to hear your views.

[English]

Mr. Antony Ogilvy: We have no delay in our program, sir. In fact, we're ahead of our development program for the next-generation fighter. We can confirm that we will meet the in-service dates, as required by the Canadian air force, of 2016. We have no delays at the present. We foresee no delays in the program.

It is a comparatively straightforward program we're embarking on, to take the aircraft from its current state to the next-generation capabilities. It is a low-risk program and is proceeding exactly as we predicted. In fact, we are slightly ahead, as we lay up the aircraft for two months before moving on to the next phases. We are slightly ahead of our program.

Would that be correct?

Mr. Peter Ringh (Technical Director, Saab Gripen Marketing, Business Area Aeronautics, Saab): Yes.

[Translation]

Mr. Robert Bouchard: I have one more quick question.

I am sure that you have done simulations with your aircraft and with your competitors' aircraft of the same kind. Could you say a few words about your competitors and about the simulations you have done with your aircraft?

• (1705)

[English]

Mr. Antony Ogilvy: May I ask you, in what sense do you mean simulations: operational simulations, operational scenario simulations?

If that's your question, sir, yes, we have done many, many simulations of operational scenarios for all three roles that we embark on: air defence; air-to-surface, sea and land; and reconnaissance. We do these and have done these in many regions and scenarios globally, worldwide. In fact, we have looked at the Arctic situation you face here in terms of our range and endurance, what we could expect to offer from the aircraft. Behind our statement that we could comply and meet your requirements, we have done simulations to ensure this is correct.

The Chair: Thank you very much.

I will give the floor to Mr. Harris.

Mr. Jack Harris: Thank you, Chair.

And thank you, gentlemen, for your most intriguing presentation.

First of all, on May 27—and I was there—the defence minister said in the House of Commons that there would be an open competition for the successor to the F-18s, this despite the fact of Canadian participation in the JSF development program.

Were you aware of that statement, and did you take it the same way as I did, that you'd get a chance to participate?

Mr. Antony Ogilvy: We took it then that it would be an open competition for the replacement aircraft, yes, sir.

Mr. Jack Harris: And we were also told during the committee hearings that the statement of operational requirements was produced some time this spring. In September we saw the high-level capability requirements document.

Were these documents made available to you by the Government of Canada, saying that's what they were looking at and asking if you were willing to participate?

Mr. Antony Ogilvy: No, sir.

Mr. Jack Harris: You've talked about your air defence capability, air-to-surface, and air surveillance. I think those are the three roles you're talking about. Is that what the multi-role fighter consists of, or is there more?

Mr. Antony Ogilvy: Basically, sir, yes.

Mr. Jack Harris: Basically that.

On air-to-air, how do you compare to the F-35, in terms of operability and turnaround time, etc.? Is there a comparison to be made there?

Mr. Antony Ogilvy: We are not certain about the operational capability of the F-35A. What we would say, sir, is that the aircraft has been designed for a very specific role: first day of the war, very stealthy. It carries its weapons internally. It is redesigned for a specific role, whereas the Gripen is designed first and foremost as a fighter. We would say we are infinitely superior in terms of our air defence and our capability in the primary role as an air defender, compared to the F-35.

Mr. Jack Harris: Just one technical thing. You talked about the turnaround of the air-to-air role taking ten minutes. What's "turnaround"? What does that mean?

Mr. Antony Ogilvy: That's the time taken on the ground to rearm and refuel the aircraft and put it back into the air. It takes just ten minutes to put the missiles on, put the fuel in, launch the aircraft.

Mr. Jack Harris: Thank you.

I think you said you could meet the high-level capability requirements. If I may summarize your statement here today, you say you would guarantee the minimum of 100% offset. From your figures, it seems to be cheaper per unit than the F-35. The estimated operating costs of \$4,000 to \$4,500 you say is cheaper than your competitors, that you're interoperable with the F-35, and that you're willing to bid on a program of less than the full number—in other words, be interoperable with the F-35. Is that correct?

Mr. Antony Ogilvy: Yes, sir.

Mr. Jack Harris: And can I ask a specific question about the cost per hour? Is that an operating cost? We've heard here about something called sustainment costs—in other words, the ongoing maintenance, the refits, the check-overs, etc. Are you talking here about the cost of operating, or are you talking about the same figure that would be called sustainment costs over the life of an aircraft?

Mr. Antony Ogilvy: The figure we gave of \$4,000 to \$4,500 Canadian per hour covers the direct operating costs, which are basically the fuel, oil, all consumables, all spares, all first- and second-line servicing, everything you would need to operate the aircraft on and off base. The only thing we don't include there is the labour charge for off-base operation. There are too many variables there.

This figure is one you can use as a comparison. It's going to be the same metric applied to any aircraft. If you simply take an apples to apples, that gives you the comparison you need. How much does it cost to run this aircraft over 40 years? We say it's \$4,000 to \$4,500 per hour.

Sustainment engineering is a parallel activity, which would be done in this country, so we don't look at that. That's not a cost to you; that's part of your program, which comes with the Gripen aircraft. You will sustain and engineer your own aircraft. That's part of our commitment to you to enable you to do that.

• (1710)

Mr. Jack Harris: And you say that is included in the \$4,000, or is not?

Mr. Antony Ogilvy: No, sir. The \$4,000 to \$4,500 are direct operating costs. Sustainment—

Mr. Jack Harris: But that includes spares?

Mr. Antony Ogilvy: It does include spares, first- and second-line servicing, fuel, oil, and off-base servicing, all the maintenance you need. The only thing we don't include in that, as I say, is the labour costs. Labour costs vary so much around the world, sir, that we take out labour costs.

Mr. Jack Harris: Have you been able to compare that \$4,500 Canadian to other aircraft, such as the F-35?

Mr. Antony Ogilvy: We see some figures in the public domain that are really quite significantly greater. We say that a fleet of 65 Gripen would cost you about \$50 million Canadian a year to operate on that basis, whereas we've seen figures of \$250 million to \$300 million to operate the F-35. I'm not sure of the basis for that, and whether it includes sustained engineering, but we certainly know that ours are a great deal less expensive to maintain than those of any of our competitors.

Mr. Jack Harris: On your participation in a Canadian program, what minimum fleet size of Gripens would make sense for you?

Mr. Antony Ogilvy: It would be any number, sir; it's entirely up to you. Probably two squadrons of 24 would be the minimum to give you an operational capability. But it's absolutely up to your operational requirements, if it were a fleet of both F-35 and Gripen. But I would suggest that 24 aircraft is the minimum. That's two light squadrons.

Mr. Jack Harris: Thank you, sir.

Those are my questions.

The Chair: I will give the floor to Mr. Hawn.

Hon. Laurie Hawn: Thank you to our witnesses for coming.

Are you aware that Brazil chose the Rafale aircraft in their competition?

Mr. Antony Ogilvy: I'm not aware of that in the last six hours, sir.

Hon. Laurie Hawn: I think that news is a bit older than that.

The 265 Gripens that have been built are Gripen A to D, not Gripen next generation, correct?

Mr. Antony Ogilvy: That's correct, sir. They're a mixture of....

Hon. Laurie Hawn: The prototype Gripen NG, next generation, first flew in April 2008, I believe.

How many countries have made a commitment to buy the next generation Gripen?

Mr. Antony Ogilvy: No one has made a commitment, but we are involved in campaigns in the countries I mentioned of India, Brazil, Netherlands, Denmark—

Hon. Laurie Hawn: Has the Swedish government expressed serious interest in the aircraft?

Mr. Antony Ogilvy: There is more than serious interest. It is committed now to the program ad infinitum. It will fund the program for 40 years.

Hon. Laurie Hawn: The aircraft is still in development, as you've said, and no one has yet bought it. Would Canada be on the hook for the cost of development if Canada were the only country to buy it, for the sake of argument? Who would fund that?

Mr. Antony Ogilvy: No, sir. The non-recurrings are actually very small, and we don't see a problem. In giving a price of \$55 million Canadian, that's the price we would ask for it.

Hon. Laurie Hawn: Maybe I missed it, but what year dollars are we talking about?

Mr. Antony Ogilvy: They would be in-year dollars, today, 2010.

Hon. Laurie Hawn: So 2016 costs would be substantially above \$55 million.

Mr. Antony Ogilvy: Not necessarily, because one thing we see and this is where I'm slightly coming outside my brief—is that as we go into this program we are making economies more and more that we didn't realize in going into the NG program. The unit cost of some of the bigger components is actually less than we expected, particularly the bigger items like engines and radar. So we're actually being slightly pessimistic in saying \$55 million, but I have to use that for reasons you'd understand in our commercial side of the company. But we don't see any escalation—

Hon. Laurie Hawn: Other than dollar inflation.

Mr. Antony Ogilvy: Yes.

Hon. Laurie Hawn: It needs to be apples to apples in that case.

You talk about configuration. What configuration would that airplane be in?

Mr. Antony Ogilvy: That would be entirely up to your configuration requirements.

Hon. Laurie Hawn: The \$55 million relates to what configuration of the airplane?

Mr. Antony Ogilvy: It's the fly-away, which is the aircraft pushed out of the shed with nothing on it—a clean aircraft.

Hon. Laurie Hawn: There would be no tanks or pylons. What about the electronic warfare suite? Would that be in there?

Mr. Antony Ogilvy: The contents of the aircraft would be there in their entirety. We would not have tanks on the aircraft at that price. We would have pylons. The aircraft would be completely configured to carry whatever you wished.

• (1715)

Hon. Laurie Hawn: How much fuel does the Gripen hold?

Mr. Antony Ogilvy: It holds 3.3 tonnes internally and up to 3 tonnes externally.

Hon. Laurie Hawn: So that's about 12,000 pounds, round number?

Mr. Antony Ogilvy: Yes.

Hon. Laurie Hawn: What does the Swedish air force pay for a gallon of fuel? Do you have any idea?

Mr. Peter Ringh: I don't have any idea, sorry.

Mr. Antony Ogilvy: We could find out.

Hon. Laurie Hawn: Your suggested operating cost of \$4,000 to \$4,500 an hour is frankly not believable with just the cost of fuel, let alone throwing in spares and all the other things you talked about. I don't think that's an accurate figure at all. Your answers are understandable, and I get that.

How have you made the Gripen next generation stealthier compared to the Gripen D?

Mr. Antony Ogilvy: We continuously look at the survivability across all aspects of lowering the signatures for both visual...the heat signatures. We're looking at putting in more radar-absorption material, particularly around the frontal areas of the intake, although that does come possibly at a penalty. We're looking at a balanced,

managed signature to make sure the aircraft is as small as it can possibly be.

But we go back to the first principle of this aircraft, which is mission success. There's no point in surviving if you don't actually achieve your aim. First and foremost for us is to actually do the job at hand in whatever role we're doing. It's not secondary for survivability, but that does actually lag slightly on making sure the aircraft is a proper operational machine.

Hon. Laurie Hawn: You suggested a mixed fleet of Gripen NG and F-35. When we bought the F-18, we looked at the mixed fleet option and discovered that we could buy more of the most expensive aircraft cheaper than we could buy a mixed fleet made up of the two least expensive aircraft. The experts managing our next-generation fighter project did a similar study and came to a similar conclusion.

What makes you think that this would be an affordable solution?

Mr. Antony Ogilvy: It's simply an option, just in case. We're realists. We know that you are very close to the F-35 program. If there's no way you're going to separate yourselves from that program, then we would offer another option. We still believe we could save you a considerable amount of money. We're just asking you to have a look at it. If these experts come up with exactly the same answer, i.e., that it's more expensive, then obviously that's the end of that one.

Mr. Patrick Palmer: First and foremost, we're concerned with mission success and the requirements from a Canadian perspective. If the F-35 doesn't meet all of those requirements, then maybe a mixed fleet might. That's what we're putting on the table.

Hon. Laurie Hawn: I understand. It's vastly more expensive, though, not cheaper.

The Indian competition is coming up. Do you know when they are going to go to a short list?

Mr. Antony Ogilvy: I'm not sure they'll ever go to a short list. I was running that campaign for three years. They may just run straight through with all six competitors. They have the capacity to do that. They've also shown that they have the capacity to do the dynamic flight tests and run them all. The Indians would not necessarily short-list as the Brazilians have done.

Hon. Laurie Hawn: Just for the sake of argument, if you didn't survive the competition in India, what impact would that have on your program?

Mr. Antony Ogilvy: We'd look at not winning in India as a concern. It certainly would not be a terminal blow to us. We have enough other campaign opportunities to make our minimum total fleet requirement, which is not less than 600. We're looking for 750 aircraft globally by the end of all our sales campaigns. If we lost India, we'd lose a large chunk of that, but it wouldn't be fatal.

Hon. Laurie Hawn: Thank you.

[Translation]

The Chair: Thank you very much.

I give the floor to Mr. Dryden.

[English]

Hon. Ken Dryden: You mentioned that you have five nations who participate with the Gripen. What are those five nations?

Mr. Antony Ogilvy: They are Sweden, South Africa, the Czech Republic, Hungary, and the Thai air force.

Hon. Ken Dryden: I don't understand the problem with the competition. Canada has been part of the development of the F-35. I understand that. We have as part of our obligation some \$170 million that we have committed as part of that development. I understand that. But I don't understand why that prevents going to a competition. It's not as if going to a competition will lose you any more than you've already sunk into the development of an F-35.

In the kind of testimony that we heard today, and other days, there are a lot of assertions made. You've made assertions, and so have previous people. We don't really have the opportunity or the capacity to sift through all those assertions and make comparisons. If we were to go to a competition and we decided to go with the F-35, it's not as if we would be penalizing ourselves. The \$170 million is already sunk in. Why would we not be going to a competition where those making the decisions would be experienced in assessing all the assertions, as opposed to a committee?

Can you help me understand why we would not have gone to a competition?

• (1720)

Mr. Antony Ogilvy: I can only assume, sir, that the technical experts in your air force were satisfied that they did not require to look beyond one particular solution for their next generation, for whatever reason. That's obviously their decision.

All we are doing in coming here and testifying is to say that even a very fast look at the competition.... The high-level issues and elements that each of the other aircraft could bring into Canada would probably serve everyone extremely well, rather than simply going straight down the sole-source route.

It doesn't take long. It's not complicated to work out exactly why you should be doing this and the fact that you can get the information in very quickly, very accurately to make a very quick first-pass assessment on whether you do want a competition. You don't have to go into the full RFI, full RFP, but we would certainly suggest that you take a much more profound look at what we can offer.

Hon. Ken Dryden: Thank you.

The Chair: Thank you very much.

I will give the floor to Ms. Gallant.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Thank you, Mr. Chairman.

When all the countries—it's ten so far—that have had military and civilian experts extensively study the requirements for the nextgeneration fighter over several years at a very highly classified level have come to the conclusion that the F-35 is the only aircraft that meets the requirements, and at the lowest cost, and with the best industrial opportunities for their industries, can they all be wrong? **Mr. Antony Ogilvy:** Certainly I would put a question mark over the cost element. I think you would be very well advised—please, forgive me for suggesting this—to take a forensic look at exactly what these costs are and drive out of the people involved much more precisely how much it is going to cost you to acquire and run these particular assets.

Now, we can give you these figures. We will give you very precise figures and you can look at them very closely. You can benchmark everyone against us if you wish. But I do feel that when one particular supplier says they are the best, the cheapest, and the only selection to be made, there's probably a question mark that you should have over that, and it's probably in your best interests. Forgive me for saying so, but you need to take a forensic look, as I say, even if it's a fast-pass look at what's available and what may be your better interests. There's nothing to lose. It may well be that the F-35 is the right aircraft for your country. But what we would say is perhaps you might be best served to check first on a number of criteria.

• (1725)

Mrs. Cheryl Gallant: I understand that Norway was seriously looking at the Gripen but they changed their minds once the qualitative differences between the F-35 and the Gripen became clear. To what qualitative differences would they be referring?

Mr. Antony Ogilvy: They didn't actually expand on that. Although we were quite clear in our own minds that we again met the Norwegian requirements, we did not get from the Norwegian authorities a definitive answer as to exactly why we suddenly fell short, having been all the way through that very long competition, if you like, neck and neck on pretty well every one of the criteria with the F-35A. It was a very late decision, as you know, which went against us. It was probably a political decision. We feel that the words they used indicated there was not any great technical issue in what we could offer. It wasn't so much technical and we believe it was a political decision.

Mr. Patrick Palmer: And our role here is not really to comment on political decisions or to comment on Canada's political decision, but to give you as much information as possible as it relates to what the alternatives are and what some of the capabilities are out there so that you have the information.

Mrs. Cheryl Gallant: I guess with respect to the cost comparison, not in U.S. dollars, it wasn't the supplier who said that, it was our experts.

How can we have confidence in Saab's ability or willingness to sustain a fleet of 65 orphan aircraft if no other country decides to purchase the aircraft?

Mr. Antony Ogilvy: Sweden will decide, so you will not be a "launch or loan" customer, and there will be at least 100 aircraft operated by the Swedish air force. We would very much hope that you would not be the only export customer, and we would certainly say that even if you were, we would most definitely support you in every way you required to keep your fleet fully operational and fully serviceable.

Mrs. Cheryl Gallant: Do you think that the Gripen could be interoperable with the F-35 over the long term, until 2050 and beyond?

Mr. Antony Ogilvy: We believe so. We believe our software program is as good as any in the world. It's certainly the most up-to-date in the world. We change our standard every 18 months, and that would align with anything that the F-35 is doing.

We would make sure it had to because in the NATO alliance you simply have to make sure you can talk and operate with your allies in the airspace on everything: communications, data link, transfer of information, etc. I believe that we would be able to maintain that level of interoperability right through to the end.

The Chair: Monsieur Bouchard.

[Translation]

You have the floor for two minutes.

Mr. Robert Bouchard: Mr. Ogilvie, one of your competitors mentioned that, if their company got the contract to provide Canada with 65 fighters, they would be prepared to commit to establishing an assembly line. Would your company be prepared to establish an assembly line if you got the contract?

What would you see as the advantages for Canada of having an assembly line for these aircraft?

[English]

Mr. Antony Ogilvy: We have an ambivalent view about assembly lines. When we're looking at the investment required to actually set up a tooling to actually put the aircraft together in a country, there is a business case and a certain number of aircraft required to make sure that is actually a viable and sensible thing to do. For a large number of aircraft, you could actually move beyond assembly into manufacturing and part manufacturing, and take it to another level.

Simply assembling an aircraft is not a demanding task; it's something that we would offer Canada. For the number of aircraft involved, there are probably sufficient numbers there to warrant an assembly line, but that's only the start of the program of supporting the aircraft. An assembly line is one thing, but our intention would be that that was part of the transfer of information, so that you would take over the whole aircraft. You would take over the support.

We were talking about sustained engineering. That would be done in Canada by Canadian companies as part of a program of assembly, support, maintenance, and upgrades. That would be our intention. It's not simply final assembly. If there came a point where you wished to manufacture the aircraft or manufacture the mould line, that's really where the business case becomes a slightly more important issue for you to look at. That's where we'd work with you on the manufacturing, rather than assembly, on what you want to manufacture, what parts of the aircraft are appropriate for your industry, and whether you want to get into some of the newest technologies in manufacturing. All of this would be built into our discussions post-contract.

• (1730)

[Translation]

The Chair: Thank you very much.

[English]

I want to thank our witnesses. Mr. Ogilvy, Mr. Palmer, and Mr. Ringh, thank you for being with us this afternoon.

Mr. Antony Ogilvy: Thank you very much, Mr. Chair.

The Chair: I would like to remind the members who are meeting next Tuesday that it will be a steering committee to discuss our future work.

Merci beaucoup.

Cela termine la 38^e séance du Comité permanent de la défense nationale.

Bonne fin de journée.

La séance est levée.

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