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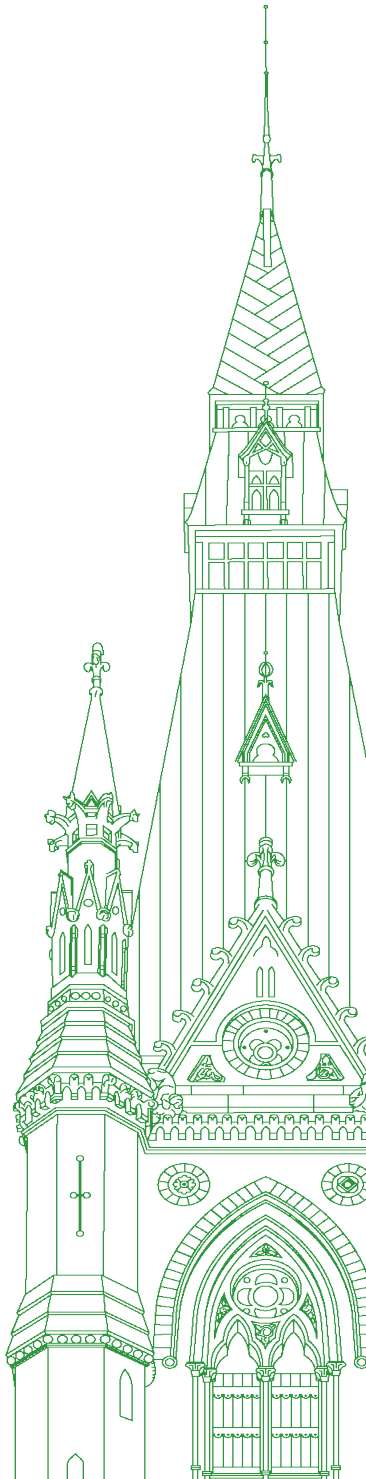

Chair: The Honourable John McKay

Standing Committee on National Defence

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● (0845)

[*English*]

The Chair (Hon. John McKay (Scarborough—Guildwood, Lib.)): Colleagues, we'll commence our meeting now.

Before we do, I just thought I'd ask James to speak to the committee. James's family has been going through a really difficult situation and some of us have been a little bit more involved than others.

James, I thought I would give you a minute to update the status on your grandson.

Mr. James Bezan (Selkirk—Interlake—Eastman, CPC): I wasn't expecting to say much, but Jack, our eight-month-old grandson, had open-heart surgery nine days ago. He's had complications ever since—an RSV infection, pneumonia and a UTI. He's in a fight, so we're just asking for prayers and everybody's best wishes.

The Chair: Thanks, James.

Those of us who have kids and grandkids know that this is very difficult to deal with. You have our thoughts and prayers.

Thanks, James, and all the best.

With that, I'm again calling to order meeting number 51 of the Standing Committee on National Defence.

We adopted a motion on February 10 to get a briefing today on high-altitude surveillance balloons from the People's Republic of China. Of course, I anticipate that we'll go into subsequent events as well.

We have with us Lieutenant-General Alain Pelletier. It's good to see you again, sir. You're very familiar with the committee.

We also have Major-General Prévost. Again, I think we're going to start issuing frequent flyer points for your, sir. We appreciate your attendance here this morning.

With that, I'm going to ask Lieutenant-General Alain Pelletier—I'm assuming—for an opening five-minute statement.

[*Translation*]

Lieutenant-General Alain Pelletier (Deputy Commander, North American Aerospace Defense Command, Department of National Defence): Thank you, Mr. Chair.

Good afternoon, committee members.

Thank you for the opportunity to speak with you today.

[*English*]

If I may, I would like to take 15 seconds to pass on our best wishes to Mr. Bezan and his family. Having lived similar circumstances, I can only empathize with what you're going through.

[*Translation*]

My name is Lieutenant-General Alain Pelletier and I'm the deputy commander of the North American Aerospace Defense Command (NORAD), which is headquartered at Peterson Space Force Base in Colorado Springs, Colorado.

As deputy commander of NORAD, I support the commander of NORAD, U.S. General Glen D. VanHerck, in the execution of NORAD missions, responsibilities and functions outlined in the NORAD Agreement and the NORAD Terms of Reference. More specifically, I oversee Aerospace Warning, Aerospace Control and Maritime Warning.

Joining me in today's virtual appearance is Major General Paul Prévost, director of staff — strategic joint staff.

[*English*]

Every day, NORAD monitors the approaches to North America across all domains. Over the past two weeks, we have detected, identified, monitored and engaged a PRC high-altitude surveillance balloon and other objects across North American airspace. These activities are well aligned with our mission of aerospace warning and aerospace control.

This balloon and the three following objects were not operating in accordance with standard aviation requirements. They were not transmitting their positions and were not in communication with air traffic control agencies. Following standard NORAD procedures, fighters and air-to-air refuelling aircraft were scrambled to locate, investigate, identify and characterize these radar contacts.

At the direction of national leadership, four objects have been taken down over U.S. and Canadian airspace within the respective sovereign airspaces and territorial waters in order to protect the population while maximizing the ability to recover the debris. These were the PRC high-altitude surveillance balloon taken down on February 4, an object over Alaska on February 10, a suspected balloon over the Yukon on February 11 and another object over Lake Huron on February 12.

● (0850)

[*Translation*]

Throughout these recent operations over North America, Canadian and American personnel from the Canadian, Alaskan and continental U.S. NORAD regions successfully detected, tracked, positively identified and monitored the high-altitude surveillance balloon and the subsequent three objects.

For each of these objects NORAD had further discussions with the U.S. and Canadian leadership on the risk the objects posed to national security, to civil aviation, to our civilian populations and to infrastructure on the ground/waters.

[*English*]

Once decisions were taken to take action and employ weapons, we also carried out risk assessments for potential collateral damages to boats and mariners and our infrastructure, as well as to people on the ground.

NORAD personnel planned and executed their mission exactly as we've been doing it over the last 65 years, and we worked collaboratively with inter-agency and intradepartment partners to ensure public safety throughout.

The detection, tracking and monitoring of these objects have highlighted some challenges for NORAD. Some of these objects have been small in size and slow in speed, with low radar cross-sections. This makes them difficult to detect and track on radar, challenging to locate with airborne assets and difficult to categorize. NORAD works every day to improve domain awareness by integrating intelligence and sensor data and reviewing previous data to improve and to help us see more.

While these objects may not have showcased hostile acts or hostile intent, their paths in proximity to aviation routes, populated areas and sensitive defence infrastructure have raised concerns.

[*Translation*]

There is much we do not know about the high-altitude surveillance balloon and more so about the three subsequent objects—that's why Canada and the United States are hard at work recovering the debris to better understand their nature and purpose.

Through intensive efforts in Canada and the United States, inter-agency teams are putting in intensive work to locate, find and collect debris for further investigation.

[*English*]

NORAD has a history of evolution. As we have seen during recent events, the threat to North America has rapidly evolved from northern approach long-range aviation to a 360° threat and from all domains.

I believe this is the first time in the history of NORAD that Canada or the U.S. has taken kinetic actions against an airborne object in Canadian and American airspace, and it is important that we maintain the necessary capabilities to continue to do so.

Thank you, Mr. Chair, for the opportunity to address the committee. I look forward, with General Prévost, to addressing any questions.

The Chair: Thank you, sir.

Mr. Bezan, you have six minutes, please.

Mr. James Bezan: Thank you, Mr. Chair.

I appreciate the kind words, General. It's good to see both General Pelletier and General Prévost back at committee.

First and foremost, I want to thank you, all of the Canadian Armed Forces and everyone at NORAD for their efforts over the past week and a half in dealing with these flying balloons and other objects that have been causing so much uproar within the media and in the general public as well.

We know that the last three balloons that were shot down looked to be more benign in nature, but we won't know that until recovery efforts have taken place.

In your professional opinion, what was the intended purpose of the first surveillance balloon, and will you confirm that it was launched from the People's Republic of China?

● (0855)

LGen Alain Pelletier: Thanks, Mr. Chair, for the questions.

We have assessed that the first balloon was launched from the PRC and is in fact a high-altitude surveillance balloon. That's the balloon we're talking about that was actually shot down on February 4, the balloon that we were able to actually track across the skies of Alaska and Canada and the U.S.

Mr. James Bezan: U.S. lawmakers, as well as some in the U.S. military, have said that first balloon flew over multiple U.S. military bases and nuclear missile installations. Can you confirm if the balloon also travelled over any Canadian Armed Forces bases?

LGen Alain Pelletier: I can tell you that we—NORAD here—monitored the flight path of the balloon for most of its flight path over Canada. As has been discussed in the media, there were some radar gaps throughout some of its flight path. As far as the actual oversight location is concerned, the high-altitude surveillance balloon of the PRC came in proximity to some of the Canadian bases, but I cannot speak of the actual response of those Canadian bases. If you allow, I'll turn to General Prévost to potentially address that aspect of the question.

Major-General Paul Prévost (Director of Staff, Strategic Joint Staff, Department of National Defence): I can surely do that.

First, Mr. Bezan, our thoughts, prayers and courage go to your family, your grandson and you. You've always been a fan of the members of the Canadian Forces, and we'll keep you and your family in our thoughts and prayers.

To answer the question, the high-altitude balloon was actually launched from China. It flew over Canada around January 30 and January 31. It came down pretty much from Alaska, down into Yukon and into central B.C., pretty much between the border of Alberta and the coast. There was no Canadian Forces infrastructure of significance along its path.

If you can picture a line straight down the middle of B.C., so far—

Mr. James Bezan: Okay. It wasn't where our bases are stationed through Alberta or go far enough west to go over Comox and Esquimalt.

MGen Paul Prévost: That's right.

Mr. James Bezan: Okay. When we're looking at these balloons that are being launched by the People's Liberation Army, what types of threat do they pose to Canada beyond the issue of surveillance equipment?

LGen Alain Pelletier: The threat is currently being assessed.

Obviously, in the considerations for the first high-altitude surveillance balloon from the PRC, our main concern was around its collection ability based on the quantities of sensors that were assessed to be on board.

As for the other objects that have been detected in the skies and for which NORAD is responsible, the assessment is yet pending. In order to have a better characterization of the capabilities of those objects, we're going to need to actually put our hands on the systems that have been downed in order to better analyze the capability that came with those objects.

Mr. James Bezan: Are you aware, both from the standpoint of the Canadian Armed Forces and NORAD, that it's been reported on Chinese state television going back to 2018 that the People's Liberation Army has been testing high-altitude balloons as a launch platform for hypersonic glide missiles as well as electromagnetic pulse weapons?

LGen Alain Pelletier: From my access to intelligence here, I'm not tracking those capabilities being tested right now by the PRC. Maybe General Prévost—

Mr. James Bezan: But they have in the past.

LGen Alain Pelletier: General Prévost, do you have anything to add there?

MGen Paul Prévost: The one thing I would add, Mr. Chair, is that we were aware of those capabilities of the balloons. On exactly what they can and cannot do, we're still trying to get assay on this. You've seen the balloon. There was quite a scaffolding of arrays hanging off it.

What I'll say is that when General VanHerck, the commander of NORAD, was first made aware of those balloons approaching North America, his first mission was to go and investigate what he could see on that array there to ensure that there were no weapons, no kinetic effects that could be delivered. We had good confidence at that point that this was not the case.

● (0900)

Mr. James Bezan: What was—

The Chair: I'm sorry, Mr. Bezan. I'm going to have to cut you off at this point and turn to Mr. Sousa for six minutes.

Mr. Charles Sousa (Mississauga—Lakeshore, Lib.): Thank you, Mr. Chair.

Thank you both for your presentation.

We reference the origin of the balloon being China, yet there's some uncertainty in terms of the subsequent ones. President Biden referenced the fact that the last "three objects were most likely balloons tied to private companies, recreation, or research institutions studying weather or conducting other scientific research." If that's the case, are you following the origin of those balloons?

LGen Alain Pelletier: Right now, as I pointed out earlier, we have an understanding of the origin of the first high-altitude surveillance balloon. Right now, during the intercept time, and going back with the data that was available from the radar, we have been unable to actually ascertain or pinpoint the origin of the other balloons.

Some of them have entered the airspace via the Alaskan NORAD region, but for the others that have been detected in lower Canada transiting into the U.S., the first indications of the objects travelling across the airspace were on radar.

Collecting or actually recovering the objects that are on the ground is important so we can not only characterize the capabilities and the threat they pose to North America but also determine the origin and, hopefully, the intent behind such a launch and capabilities.

Mr. Charles Sousa: Thank you.

As involved with NORAD as you are, with the modernization proposals being put forward—the $40 billion to be invested over 20 years—do you foresee a need to reassess some of those plans, given your recent initiatives with NORAD?

LGen Alain Pelletier: Obviously, as I mentioned in my opening remarks, NORAD is an evolving organization. We always attempt to remain relevant, not only to the Canadian government and to the public but also to our allies and, most importantly, to potential adversaries.

We're always looking internally at whether we have the right capability. This is where NORAD modernization is going to help. It's going to provide enhanced sensors to increase our air domain awareness against the evolving threats that exist out there that may be coming mainly from Russia and China but also potentially from other countries.

The additional piece—Strong, Secure, Engaged—is going to provide additional air capabilities to NORAD in the form of the F-35s that were recently announced, as well as the strategic tanker capability, which is going to give us increased reach and increased capacity across our areas of operation.

Mr. Charles Sousa: All of us, frankly, with the news and so forth, are concerned about the security threats this may pose as well as the threats to civilians. I think those have been cited as being among the aviation concerns.

Do you foresee any other engagement? Do you find these balloons posing any kind of civilian concerns?

LGen Alain Pelletier: One of the main concerns, aside from potential surveillance and characterization of the objects and balloons, involves civil aviation, given that the last three objects were transiting through U.S. and Canadian airspace at altitudes at which commercial airlines travel regularly, especially those coming across the pond, as we say—across the Atlantic—and in the Arctic from Europe or making their way to Europe.

It was a concern, and that was one thing both governments considered before taking action against those objects.

● (0905)

Mr. Charles Sousa: Thank you, gentlemen.

The Chair: You have a minute and a half.

Mr. Charles Sousa: That's great.

When we talk about the threat from China or Russia and trying to determine how many of these balloons are actual research balloons or hobby balloons, do you have any hope of recovering some of the balloons that have been brought down to determine if that's the case?

LGen Alain Pelletier: I will turn to General Prévost to answer with respect to the recovery aspect.

MGen Paul Prévost: This is going to be a difficult operation. For the one over Lake Huron, which is the third of the small objects that were shot down, the U.S. Coast Guard was in charge of that operation, and they've ceased their recovery effort, given the small chance of finding anything there. The other ones in Alaska and Yukon are fairly up north in very difficult terrain, with lots of snow. The one in Yukon specifically landed in mountainous terrain with about a metre to a metre and a half of snow. Picture an object falling from 20,000 feet into that snow.

We're doing everything we can right now. I can tell you that we have about 130 members of the Canadian Armed Forces, and right now, I'm answering for the RCMP. Unfortunately, they couldn't meet us today. It's their operation, but we're supporting the RCMP in this one. There are 130 members of the Canadian Armed Forces there, and we have multiple platforms. The first part is to find what we can by aerial search. We had a CP-140 on site, and we now have a Hercules, a Cormorant, a Cyclone and three Griffons. If we ever find something, we also have a task force of about 70 members, mainly from the special forces but also working with the Canadian Rangers, who would be able to find their way to what we call the "find area" to extract it.

It's still an important effort until we find one of those three objects, now two objects, one in Alaska and one in Yukon. Until we find them, we'll never be very sure of what those arrays were.

The Chair: Thank you, Mr. Sousa.

[*Translation*]

Welcome to the committee, Mrs. Desbiens.

You have the floor for six minutes.

Mrs. Caroline Desbiens (Beauport—Côte-de-Beaupré—Île d'Orléans—Charlevoix, BQ): Thank you, Mr. Chair.

First, on behalf of all Quebecers, I'd like to say that we support Mr. Bezan and our thoughts are with him. I'm sure everything will go well. We are with you in spirit.

Major General Prévost and Lieutenant-General Pelletier, thank you for being here.

Your reports are always quite interesting. My father had a passion for the military and military operations. In turn, I took an interest in it from a very young age as well. So I feel privileged to be here this morning to talk with you.

Lieutenant-General Pelletier, you stated that this was the first time action was taken under circumstances like these.

Should we see this as a signal? Do we need to be better prepared for this type of operation or situation?

LGen Alain Pelletier: Thank you for the question.

Obviously, as General VanHerck often says, the global security environment is more and more challenging, not only for us, but also for our allies. We have watched the threat evolve. What I've been doing here in my consultations this week with my colleagues in Ottawa, as well as the organization, is assessing what that means. It's kind of like the evolution from the Cold War to 9/11, where we witnessed a paradigm shift in terms of a threat that could come from within.

This time around, we're talking about objects that present challenges to the Department of Defence and NORAD, not only due to the speed at which they travel, but because of the altitude at which some of them have entered our airspace and their small radar reflection area.

These are things we must consider. We're looking at this in terms of the rules governing our operations to determine if we need to change some of those rules to make our operations more agile and flexible.

● (0910)

Mrs. Caroline Desbiens: Thank you, that's very interesting.

You said that the downed balloons looked different. One might imagine that it's because they played different roles and are possibly of different origins.

Can you confirm or deny that based on the information gathered so far?

LGen Alain Pelletier: Thank you, Mr. Chair.

Of course, one thing we're interested in right now is categorizing the objects, as I said earlier.

We intercepted the objects. We tried to capture some images of these objects, but given their very slow speed compared to the fast speed of the fighters at high altitude, we had very little time to observe them.

In addition, light conditions were not optimal, especially for objects 1 and 2 last week. What we saw in the Yukon appeared to be a balloon, but the other objects appeared to be structures. That's why we want to capture these objects, to use a military term, and analyze them to determine if they are balloons or other kinds of objects, like a drone, and to better understand their origin and what they can do.

Mrs. Caroline Desbiens: Thank you very much.

My next question addresses the same concern. It has to do with how effective NORAD is.

First, is a 130-member force on the ground sufficient?

Is the time factor working against us when it comes to obtaining better intelligence?

LGen Alain Pelletier: I will let Major General Prévost speak to the issue of recovery.

MGen Paul Prévost: Thank you.

As for whether 130 members is enough, my answer is yes, it is for now. As I mentioned earlier, the search effort is currently happening in the air. We have six aircraft on the site with various types of surveillance pods. The goal is to find something in the snow. We're talking about a needle in a snowbank rather than a needle in a haystack. So it will be hard to find.

Every effort is being made, however. We have every piece of equipment at the site to find, from the air first and foremost, something that might remain. It could be the structure of the object or electronic components to determine first what it can do and then its origin. We also have a 70-person team on the ground who will be ready to react once the object has been found and go recover it. The conditions are difficult. It's very cold in the Yukon. The snow cover in the mountains is currently about 150 centimetres. This is also wooded terrain. More snow is expected, which is a concern. The more snow there is, the more the remaining components will get buried.

We're making every effort and proceeding quickly, given the challenge of the snow forecast for early next week.

Mrs. Caroline Desbiens: Thank you.

The Chair: Thank you.

[*English*]

Ms. Mathyssen, you have six minutes, please.

Ms. Lindsay Mathyssen (London—Fanshawe, NDP): Thank you to both of the witnesses for being with us today and for your service.

Just for clarity's sake, Lieutenant-General Pelletier, you mentioned that the reason these objects were suspect or potentially an issue was that they weren't communicating in standard formats. They weren't acting regularly. Can you better explain or go into a bit more detail as to what you meant by that?

Also, my curiosity is sort of around.... It seems like all of a sudden we have these four objects. When you say that they weren't using regular techniques or regular communications, nor were they acting regularly, what other types of regular communications and typical objects do we often see? What is more of a typical thing?

Can you explain a bit more about that?

LGen Alain Pelletier: I can definitely amplify here.

As I mentioned, our task is to detect, track, identify and characterize, and from there to assess the threat related to any unknown tracks coming across the NORAD airspace and within the NORAD areas of operation.

As part of that, our folks on the ground are using sensors—mostly radar sensors—to detect anything that may be on the approaches of North America, as well as leveraging sensors for what may be in the airspace.

The reality is that the size of Canada and the U.S. doesn't allow for full coverage of the airspace. We have a huge land mass. In this case, normally we're going to have the ability to detect the standard air traffic, which would normally communicate with the air traffic controls. They would be “squawking”, or transmitting a code that would be picked up by air traffic control to identify the aircraft itself.

In the case of general aviation, that is what we call a “1200 squawk”, which is saying that it's a general small aircraft operating in the vicinity of the location.

I haven't actually gone into the book to look at the specific Transport Canada or U.S. Federal Aviation Administration regulation, but I know that balloons or other objects ought to be transmitting a position and an altitude location so that we can actually distinguish between them and potential air traffic and enhance safety as well.

In this case, those objects and the high-altitude surveillance balloon of the PRC were not in communication—were not squawking—and therefore were unknown to us. That's why we first of all took action to identify them. Then, because of the threat they posed to civil aviation, which was a concern to both governments, we actually took them down under the direction of both governments.

● (0915)

Ms. Lindsay Mathyssen: Okay. In terms of the object over Lake Huron, there were comments on the fact that the first shot that was aimed at this unknown object missed. Could you go into more detail about where the missile landed and the consequences of that, please?

LGen Alain Pelletier: The engagement over Lake Huron on February 12, which took place at around 2:42 p.m., or 14:42, carried out by F-16s with the latest AIM-9X missiles, turned out to require two missiles. Both of the missiles were shot from U.S. airspace, and the first one has been assessed as landing on the U.S. side of the border within Lake Huron.

Ms. Lindsay Mathyssen: With all that risk assessment, even with it missing, is that all within those parameters of that risk assessment to civilians and...?

LGen Alain Pelletier: Definitely. I mentioned that we do risk assessment as it relates to the objects. In the case of the first event, it was the high-altitude surveillance balloon from the PRC. Then, after that, once a decision is made to actually engage the object, a follow-on risk assessment takes place with regard to the probability of success of that engagement with the different weapons systems we are going to use and also with regard to the probability for potential collateral damage to civilian infrastructure as well as to people on the ground when that object crashes or lands or arrives on the ground. That's the second risk assessment that takes place.

I can tell you that this discussion took place in NORAD, not only within the military circle but also with the leadership of both countries.

The Chair: That completes our first six-minute round.

We're now on to the second round. For five minutes, we Madam Kramp-Neuman.

You have five minutes, please.

● (0920)

Mrs. Shelby Kramp-Neuman (Hastings—Lennox and Addington, CPC): Thank you, and good morning to everyone.

Certainly over the last several weeks we have learned and confirmed that there are potential security threats to Canada and we've learned that they are of major interest and concern to Canadians. There is no doubt these events have created a tremendous amount of buzz and many questions.

Thank you for being with us here today to provide some insight.

Allow me to move forward.

Major General Prévost, during the briefing you said, “At this time, we were not asked to use CF-18s on any of those objects just because of where they were and where our resources in Canada were at the time. But there are capabilities on the CF-18 that will be able to take care of some of those objects, depending on where the are and what they are.”

My first question is this: Did the RCAF receive an order from NORAD or the CDS to shoot down any of the objects that violated Canadian airspace?

MGen Paul Prévost: Maybe I can clarify what I said in the previous session.

On the object that was in Yukon, F-18s had been scrambled from Cold Lake to go and execute the order that both governments had made about this object. This object first transited from Alaska, where the decision had been made to engage that object, and then was transiting from Alaska to Yukon.

At the time, we were in transition between the U.S. fighters and the Canadian fighters that took off from Cold Lake. The F-18s from Cold Lake were minutes from being on site when we were able to take action with the American F-22 fighters, but this was about to be a handover between the U.S. fighters and the Canadian fighters. NORAD, because of the way we work, is very binational in nature. You can see that the deputy commander of NORAD is a Canadian. All assets are always at the disposition of both governments, be it U.S. or Canadian fighters, tankers or surveillance airplanes.

On the one in Yukon, the F-18s had been scrambled. The F-18s had a good chance of taking an engagement there, but we elected to go with the first opportunity, which was the F-22, just as the object crossed the border.

Mrs. Shelby Kramp-Neuman: Okay.

Are you able to share exactly what the lack of resources was that prevented the RCAF CF-18 fighters from actually shooting down the balloon? Was there a lack of resources?

MGen Paul Prévost: General Pelletier talked a bit about that question.

Part of the ongoing assessment is on what the threat is—what it is made of and what does it emit? The missile we're talking about here is an infrared missile, so is the object hot enough? Is there a chance that we're going to have a shot at that? That assessment happens as the object moves across.

We thought the CF-18, on that object, would have been able to attempt it. It was going to be the first attempt from a CF-18. Before taking that shot, there were a few tests that would have let us see if we had a good shot on it, but it did have an armed missile to take that object down.

Mrs. Shelby Kramp-Neuman: Going back to your initial response, you spoke about “minutes”. Do we know how many minutes? Was it five minutes, two minutes, 10 minutes?

MGen Paul Prévost: I would say that it's probably in the five-minute range.

LGen Alain Pelletier: If I may, Mr. Chair, I just want to highlight the fact that given the binational nature of the NORAD command, we're going to go for the best toolset that is available at the time but that is also currently available. In these conditions, given the changing environmental conditions and the desire to actually take it down as soon as possible, the asset that was on hand was the F-22.

I must also say that the best tool is not only the fighter; it's also the type of missile. Every condition, based on a radar cross-section infrared signature, may require a different toolset. That's what we've seen in the difference between the high-altitude surveillance balloon and the follow-on three objects that we observed. Those were changing conditions that could probably have required different toolsets.

Mrs. Shelby Kramp-Neuman: That's perfect. Thank you.

Was there enough time to move our fighter jets to our forward operating locations to better position the RCAF to intercept the object?

LGen Alain Pelletier: Time is always an element, a factor, and the nice thing is that Canada and NORAD don't have only the fighters; they also have the strategic tankers provided by both Canada and the U.S. to actually carry out the missions.

In this case, at the Canadian air defence sectors and the Canadian NORAD region, which look at the disposition of fighter assets in the Canadian airspace, made the decision to actually keep the fighters in Cold Lake and to scramble from Cold Lake, which is the main operating base. This enabled easier sustainment and leveraged the strategic tankers to provide the reach required to achieve the intercept itself.

● (0925)

The Chair: Thank you, Ms. Kramp-Neuman.

Mr. Fisher, you have five minutes.

Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.): Thank you, Mr. Chair.

Thank you, gentlemen, for being here today.

I think of the phrase we used to hear all the time: “Inquiring minds want to know.” Since these incidents, so many people are asking questions, and we don't really have answers.

I know that NORAD, CAF, the Canadian government and the U.S. government keep holding briefings, but it just seems that there are so many unanswered questions. I've listened to all the conversations going on here today, and it still seems that there are so many unanswered questions.

My apologies if what I'm asking touches on some of the things that were already asked.

I think General Pelletier talked about the first balloon. We kind of know what they can do and what they can't do, but can you fill us in on what we don't know? What kinds of challenges are facing us in finding out and getting the answers to some of these questions?

I picture an update on finding what's left of that first Chinese surveillance balloon, and I think you might even have touched on an update on the rubble. Maybe you could touch on an update of what's left to accomplish and what questions you folks have and NORAD has that we're still trying to find out about.

LGen Alain Pelletier: Okay. I'll start, and then I'll pass it over to General Prévost.

The first unknown for us during the actual intercept phase of the objects was, again, characterization. Where is the object coming from? For the objects, we could not discern or didn't have a visual on any form of registration on the objects. Normally, even an air balloon or a commercial or civilian aircraft would have a registration to actually demonstrate the country of origin.

Obviously, as I pointed out, the rate of closure of the fighters made identification of those registration marks very difficult. This was combined with low light conditions for two out of the three object intercepts. Also, the capability of the payloads that may have been carried by the objects is an element of high interest, in order to actually assess not only surveillance capability and collection capability but potential threat capability as well.

General Prévost, do you want to add something?

MGen Paul Prévost: Yes.

Maybe what I'll add is that there are many unanswered questions, as the member mentioned. The one thing we know is that those four objects were unauthorized and unwanted. That we know. We had to take action on them. It is true that we don't know exactly what the last three objects were, but they were unauthorized and unwanted. We're still searching for those objects on which we have more questions, the ones in Yukon and Alaska. Hopefully, we'll find them so that we can link or corroborate what these were.

With regard to the one that was shot down over the coast of South Carolina, we had a very good idea of what that was, because this had been observed in the Pacific before, but these things evolve. It's scaffolding that China can put a lot of arrays on. Many of those have been recovered, but they're still searching the water. Two naval ships and I think a U.S. Coast Guard ship are still trying to find the rest of it at the bottom of the ocean. They've recovered parts of it already. Some of it we already knew and some of it will be under analysis. We'll let the U.S. disclose what that is when they're ready.

Mr. Darren Fisher: I don't want to put words in Ms. Mathyssen's mouth, but she said something along the lines of how all of a sudden we have all these objects in the sky. In your opinion, is it maybe just a heightened awareness after that first balloon came from China that now has us out there looking? You talked about them being small and slow. It kind of reminds me of my hockey career.

Is it that we have a heightened awareness now and we're looking for more of these things in the air?

● (0930)

LGen Alain Pelletier: Obviously, we always try to optimize sensors for the potential threats that may be coming, especially on the approaches to North America. In our case, sensors have been cued to detect long-range aviation. We've worked on sensors to detect potential cruise missiles, which are one of the predominant threats out there, as seen in other regions.

With the detection of the PRC high-altitude surveillance balloon around the end of January and early February, at NORAD we went back and did data interpretation and data analysis. We tweaked the filter—it normally is called a gate, but I'll use the word “filter”—that we use to discriminate from just radar anomalies to be able to detect objects with a lower speed and a lower radar cross-section. Obviously, by lowering the gate or the filter, we end up with the risk of having more false contacts. That happens. Radar can detect dust particles in the wind, potentially, or birds that are travelling. That may lead to false contact.

That's an element that we're cognizant of and that we're going to be monitoring. That tweaking of the radar is probably what enabled the detection of the follow-on objects in the last couple of weeks.

The Chair: Thank you, Mr. Fisher.

[*Translation*]

Mrs. Desbiens, you have the floor for two and a half minutes.

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

My question is for Lieutenant-General Pelletier or Major General Prévost.

In your opinion, is NORAD adequately equipped to monitor the airspace?

You will surely tell me that there's always room for improvement. However, are you comfortable with the current equipment?

LGen Alain Pelletier: Mr. Chair, I thank the member for the question.

The possibilities are endless. In terms of sensors and effectors, fighter aircraft or tankers and so forth, we have needs everywhere.

We do the work with the tools we've been given, and we send a list of our requirements to the Canadian and U.S. governments every year. As I mentioned earlier, those needs change as the threat changes.

After 9/11, we had to adapt to a new internal threat, that of terrorist groups using commercial aircraft. We're currently transitioning to be able to detect cruise missiles and respond to the threat, as I mentioned earlier.

As part of the modernization of NORAD, the Canadian government is going to give us additional tools that will improve our ability to respond to the mission.

I mentioned the Canadian government, but the U.S. government also announced support in its most recent budget for the purchase of four over-the-horizon radars, similar to the ones Canada will procure after NORAD modernization.

We continue to communicate our needs to both governments to ensure we're able to respond to a current or future threat.

[*English*]

The Chair: Ms. Mathyssen, you have two and a half minutes.

Ms. Lindsay Mathyssen: Lieutenant-General Pelletier, you mentioned the addition of Canada's F-35s and increasing the capabilities of what we could detect.

Correct me if I'm wrong, because I'm not technically knowledgeable about these things, but it was my understanding that because of the high altitude of the first balloon that was detected, only the F-22s could reach that high up.

Could you explain what you meant by increasing abilities through the F-35s? If they actually weren't useful in this instance, how could they continue to be useful going forward in these sorts of instances, especially since it was such a high altitude and they weren't...?

● (0935)

LGen Alain Pelletier: I appreciate the interest in the F-35s. Having worked on the project for a number of years, I can speak a little bit to that. I will see if Major-General Prévost wants to add.

Again, it's the usage of the right tool for the right unknown or object that may be in both our airspaces. At the end of the day, it's not only about the aircraft; it's also about the aircraft, its sensors and its weapon package, so that we're able to actually tackle different threats being presented.

For high altitude, with the sensors on board the F-22, F-35, F-16 or CF-18, we're probably in a position to detect the high-altitude surveillance balloon or the objects that we've seen. The small radar cross-section makes it challenging, but the multitude of sensors onboard the aircraft now allow for cross-queuing on the specific threat or on the specific object that we're trying to intercept.

Ms. Lindsay Mathyssen: Just to clarify, it was said that the F-35 wouldn't have been able to do what was needed in terms of that first Chinese balloon.

The Chair: Comment very briefly, please.

LGen Alain Pelletier: I believe that the sensors of the F-35 would have been able to. I'm not going to talk about the maximum altitude of the F-35 here because at the end of the day, the F-35—or any fighter aircraft—doesn't need to be at co-altitude with the object, because it can employ weapons that will make up that altitude difference if we decide to take out the object.

The Chair: We're going to have to leave it there. Thank you, Ms. Mathyssen.

Mr. Kelly, you have five minutes.

Mr. Pat Kelly (Calgary Rocky Ridge, CPC): Thank you.

I'd like a little more clarity, again, on the armaments of the CF-18, the CF-18s that were scrambled and the ones that we have the ability to scramble.

Media reports have said that the AIM-9s have not arrived but were ordered two years ago. On the armaments of the aircraft that were scrambled, in an earlier comment you said they were armed with missiles that you believed were capable of striking and taking down a balloon, although there would have been tests if they were going to make the shot.

Can you clarify the status of the CF-18's armaments?

LGen Alain Pelletier: I'll let Major General Prévost talk about the acquisition project.

MGen Paul Prévost: The F-18s had been scrambled for the object that was shot down in Yukon. We scrambled on this one. Onboard the F-18s were infrared missiles that we believe would have been able to take the shot. We don't know this because we didn't make it and the decision was made to shoot it down using the F-22.

Similarly, when the object came over Lake Huron, if the F-16s from the U.S. had not shot down that object, the F-18s had been scrambled from Bagotville on their way to take over from the U.S. on this one. They had infrared missiles on board, and we believe we would have been able to take the shot. We'll never know because—

Mr. Pat Kelly: Are these missiles that had been ordered as an update to the CF-18 armaments, or are these the older missiles?

MGen Paul Prévost: The F-18 has the AIM-9M, which is a lesser version than the one that was used in the U.S., but we believe we would have been able to take the shot.

Mr. Pat Kelly: The object that was shot down over Yukon was tracked, as you've said. The American F-22s were in contact with it before it crossed the border. Why was it not shot down over American airspace?

● (0940)

LGen Alain Pelletier: The object was detected in early morning, but early morning in Yukon and Alaska is late morning for folks in the lower 48 just because of a later sunrise. Given the size of the object, it needed to be intercepted during daytime in order to be able to identify and characterize the object itself—

Mr. Pat Kelly: It was a question of waiting for sunrise.

Is darkness part of a gap in our awareness and ability to detect and identify threats to our airspace?

LGen Alain Pelletier: Darkness is maybe a challenge, depending on the speed, size and characteristics of the object. The sensors on board the different aircraft may have an ability to actually characterize, but that ability is dependent on a number of factors, including infrared signatures and electro-optical characteristics as well.

In this case, in order to have a better characterization of the object and its potential package, we scrambled fighters. That scramble led to an intercept just before sunrise. About five minutes after sunrise, that object crossed into Canadian airspace. That's why F-22s were on board and following and tracking the object.

Mr. Pat Kelly: There is an awful lot of darkness in the winter in these latitudes. It is somewhat troubling that there is such a short window as part of the necessity of assessing whether there is a kinetic threat.

Let me get to that point.

In earlier testimony we heard that General VanHerck was confident that there was no kinetic threat on the first balloon, the PRC-confirmed balloon that was shot down later. If it was determined that there was no kinetic threat, how was he able to make that call so early? Can you walk us through how this happened?

LGen Alain Pelletier: Thanks for the question—

The Chair: Answer very briefly, please. Mr. Kelly is beyond his time.

LGen Alain Pelletier: Okay, good.

An assessment was made using a number of systems that are within NORAD and within the commander's ability to use. Those systems, after a quick analysis of the potential payload that was underneath the structure, led the commander to his conclusion.

The Chair: Thank you, Mr. Kelly.

Madame Lambropoulos, you have five minutes, please.

Ms. Emmanuella Lambropoulos (Saint-Laurent, Lib.): Thanks, Mr. Chair.

Thank you to our witnesses for being here to answer some of our questions on something that has been a big question mark for many people. As my colleagues mentioned, I think this is top of mind for Canadians right now.

There are still a lot of questions marks, because we don't necessarily know what we're dealing with or where they're coming from. You mentioned how difficult it has been, and it will be, to recover the wreckage, especially because of the location and the fact that it fell over Yukon and is now buried in snow. It's possible we won't be able to recover some of the parts, if at all.

If that's the case, is there another way of learning about the origin, the capabilities and the purpose of the object? Is there any other way, or do we really need to find this piece in order to answer some of these other questions?

LGen Alain Pelletier: Obviously, we're still doing data reduction of the radar contacts. The three different regions of NORAD involved with the intercepts are also doing video analysis. Obviously, those videos are at a higher classification than this forum.

Those assessments are being done, as well as a better characterization of whether it's a commercial, non-commercial or private usage of balloons that is taking place, not only in our airspace but across other airspaces as well, so as to better understand how many of these systems are probably in the airspace at any one time.

General Prévost, is there anything you want to add?

● (0945)

MGen Paul Prévost: I think, Mr. Chairman, the member has it right. Until we find it, we won't be exactly sure what this was, where it was manufactured and where it came from, but as General Pelletier mentioned, we're looking back as well at the radar. We know that two of those contacts came into Alaska from the Pacific. We just don't know what they were, where they were manufactured or how they got there.

We would really like to find those things on the ground, and there's a lot of effort to find them on the ground to close some of those questions.

Thank you.

Ms. Emmanuella Lambropoulos: Thank you.

Why, in your opinion, would China use balloon surveillance as opposed to a satellite or something else? Why is it, do you think, they're using this specific object or these types of objects in order to enter our airspace and surveil us?

LGen Alain Pelletier: Thanks for the question.

Again, my view is that it is one of multiple sensors that could be used. It is one they may have felt was not going be detected and one that may be a bit more difficult to attribute, as well, in terms of launch locations, capabilities and intent. That may be one of the reasons. We know that the PRC has a number of systems in orbit that have a great capability, but those systems may not have the loiter time that a high-altitude balloon—a surveillance balloon, in this case—may bring about.

General Prévost, is there anything you would like to add?

MGen Paul Prévost: What I would add is we have a good sense of what they are. Finding more on the ground will help close some of that gap.

However, I think we all know that China likes to challenge the international order. China is more assertive in its foreign policy. China is also building military capabilities to assert that foreign policy, so we have to be concerned.

As I mentioned before, some of the answers we have are that this object was unauthorized and unwanted. We have to make more sense of this. We have to make sure we're prepared for this. That's what I'll answer for now.

Ms. Emmanuella Lambropoulos: Thank you.

I know you've already touched on this a little bit, and a couple of my colleagues asked similar questions.

Why did detecting this balloon require us to fine-tune or change the tuning of the radars to pick up slower-moving and smaller objects? In the aftermath and going forward, is there a change in how we'll look at this?

I know we mentioned that sometimes there are false contacts because of the way radar is able to see smaller things. Clearly, here it helped us find potential danger.

What is our outlook going forward?

The Chair: That's an intriguing question that I would really like to hear an answer to, but unfortunately Ms. Lambropoulos is out of time.

We are going to go for a third round, colleagues. Maybe someone could raise that question during the third round.

I have questioners, but I need advice from both the Conservative Party and the Liberal Party for the last two questioners in the third round.

With that, I'm going to call on Mrs. Gallant for five minutes, please.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): The general said that NORAD provides a list of needs to the U.S. and the Canadian governments on a yearly basis. I'd like to see that list provided to the committee.

Would that be possible, Mr. Chairman?

The Chair: I don't know. We're going into some pretty sensitive areas, I should think. I would appreciate guidance from General Pelletier as to whether that could be provided within the confines of their secrecy qualifications.

LGen Alain Pelletier: Thanks, Mr. Chair.

I missed the description of the list. I apologize.

● (0950)

Mrs. Cheryl Gallant: It's the list that NORAD provides to the U.S. and Canadian governments of what it needs on a yearly basis.

LGen Alain Pelletier: Thanks, Mr. Chair, for the question and the request.

Unfortunately, that list is classified. We'll work with command to potentially provide a declassified version of the list for the committee.

Mrs. Cheryl Gallant: Thank you.

Major-General Prévost said that they knew that the PRC surveillance balloon wasn't armed because NORAD had seen it over the Pacific before. Was that this specific balloon or was it other balloons from the PRC that are similar to the one that had come over North America?

MGen Paul Prévost: Mr. Chair, I'll take that one.

I believe what I said was that we understand what that high-altitude balloon is because we've seen those over the Pacific before. We understand where they're coming from, how they operate—to a certain extent—and the fact that there's a large array—30 metres long—underneath with multiple sensors. That's our understanding of it.

For the one that came over Alaska, to confirm what was on it, General VanHerck made the decision to intercept it and take a visual and sensor identification of what was on there to ensure he couldn't see any kinetic weapons that would pose a threat to Canadians or Americans.

Mrs. Cheryl Gallant: Was that observed before NORAD detected them in our airspace?

MGen Paul Prévost: Mr. Chair, that is correct. In 2021, some of those balloons had been flying over the Pacific.

Mrs. Cheryl Gallant: I'm trying to determine exactly when we first knew about this high-altitude PRC balloon.

The Washington Post on Tuesday and The Globe and Mail on Wednesday said that the U.S. tracked the PRC spy balloon from its liftoff in Hainan Island. They observed it making a course change away from the Pacific military bases of the United States towards the mainland.

How is it that NORAD did not know about the high-altitude balloon until it was over mainland North America, or did they know?

LGen Alain Pelletier: Obviously, we detect objects by using the sensors we have. As you pointed out, those lifted off from the PRC at different times using different wind models to carry them. What we've seen is that those balloons and objects tend to follow wind patterns at altitude, and those change, based on the altitude itself.

For us, it became an element of interest when the radar picked up the high-altitude surveillance balloon as it started approaching the air defence identification zone. That's when we started attempting to characterize it and look at identification for that system.

A number of objects transit through the Pacific that we may not be tracking because they're outside of our sensors and because we don't consider them to be a threat to the airspace itself.

Mrs. Cheryl Gallant: We were told that you really didn't know what the payload was or what its capabilities were until you were able to take a look at the array that's been retrieved off the coast of South Carolina.

General Prévost said that he knew there wasn't a danger from the hypersonic missiles because they had known about them in the past but they hadn't seen anything to do with them in the past several years.

We have footage on the Internet that shows the potential for a similar balloon to carry hypersonic missiles. If they can't tell what the payload really was until they retrieve the arrays, how did they know, when it was over continental North America, that there wasn't something dangerous to the population below as part of the payload?

● (0955)

The Chair: That too may be an important question, but again Ms. Gallant is out of time.

Madam O'Connell, you have five minutes. Go ahead, please.

Ms. Jennifer O'Connell (Pickering—Uxbridge, Lib.): Thank you, Mr. Chair.

Thank you both for being here with us.

Certainly a lot of Canadians seeing the media, here and in the U.S., have lots of questions, so I think it is helpful to go over some of these things.

Do you have any information that can be shared with respect to the first surveillance balloon from China? Do you have any indication that it was actually able to be remotely controlled, or was it truly a balloon in the sense that it was floating somewhat randomly?

LGen Alain Pelletier: We assessed, based on the analysis of the image captured during the flight of the high-altitude surveillance balloon, that the balloon might have a capability or limited capability to be steered around the airspace, but we also assessed that the majority of the flight path was based on the ability of the balloon to just float and traverse the airspace using high-altitude wind patterns.

Ms. Jennifer O'Connell: In terms of the capabilities, certainly when this story was first progressing through the media and we were learning about it in semi-real time, probably, there was some commentary that Canada wasn't able to handle something like this on its own. We've even heard a bit of that here today, with questions as to what the CF-18s can do and what they are not capable of doing.

Again, for the benefit of any Canadian who is watching this, the benefit of NORAD and the reason it exists is to have a partnership in order to not have duplication in some respects. Obviously each nation has to be able to defend its own sovereignty, but the whole purpose of NORAD is to be able to offer that North American alliance and that assistance. As was noted, the CF-18s could probably have handled this, but an operational decision to go in a different direction was made.

Could you perhaps elaborate on why that NORAD partnership exists and how Canada does not lack capabilities, and how, in fact, this NORAD partnership is precisely why we are capable of handling any such threat or instance such as these flying objects and these high-altitude balloons?

LGen Alain Pelletier: I couldn't agree more with the member's statement. I've been in the air force, and I've lived through NORAD since pretty much when I started flying the CF-18 during my career. During NORAD's 65 years of activity, it has always been seen as an ecosystem of capabilities, where the strength of both nations is brought together in order to actually achieve mission success.

In this case, I don't see a Canadian capability to conduct aerospace warning, aerospace control; I see a NORAD capability to conduct aerospace warning and aerospace control—and maritime warning, as a matter of fact, as an additional mission that we have in defence of Canada and the U.S. The collaboration that exists in NORAD is what has made us successful.

We're attempting still to this day, with NORAD modernization activities by both countries, to be as complementary as possible so that we don't end up pulling additional resources from each of the respective countries when we can actually be complementary and interoperable.

The people here at NORAD wear either the Canadian or the U.S. uniform. As I always say, I'm agnostic to the flag. I care about the output and achieving mission success for both of our countries.

● (1000)

Ms. Jennifer O'Connell: Thank you.

[*Translation*]

The Chair: Mrs. Desbiens, you have the floor for two and a half minutes.

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

We learned on Monday through the national networks that NORAD had intercepted four Russian military aircraft near Alaska, but that they had not entered North American airspace. However, the event occurred in a context of correlation, given the presence of balloons in Alaska, the interceptions and world conflict. In particular, a war is currently underway and one of the players is rather unpredictable.

Is it enough to be on high vigilance at NORAD? Could this justify both governments investing more, very quickly, to upgrade your equipment?

LGen Alain Pelletier: Thank you for the question.

Obviously, NORAD is always in a state of vigilance. Our motto is “We have the watch”. We're watching 24 hours a day, seven days a week, all year long.

Intercepting Russian strategic aircraft is a common occurrence at NORAD. We regularly see these incursions into the identification zone, not into the airspace. Obviously, if they were to enter our airspace, that would be different. On average, we do about seven intercepts a year involving these types of aircraft, primarily in the Alaska area, sometimes in the Arctic, and more rarely on the Atlantic coast. Some years we've had as many as 15 intercepts and other years we've had none at all.

We are on high vigilance, especially at this time of crisis in Europe. We see these as routine sorties, training exercises for Russian strategic aviation.

[*English*]

The Chair: Thank you, Madame Desbiens.

You have two and a half minutes, Ms. Mathyssen.

Ms. Lindsay Mathyssen: Thank you.

The Americans and the Biden administration say that their intelligence community developed the techniques to track and monitor these surveillance balloons last year. You just talked about the sharing of information, the fact that NORAD worked with both, but the administration specifically stated that it was the Americans that delivered and monitored and developed this surveillance. Was that shared with NORAD? How is NORAD a part of that? How does that connect with RADARSAT? How were Canadians made aware of that intelligence? Was that shared?

Can you explain that process?

LGen Alain Pelletier: I'll start, and General Prévost may want to add something with regard to our CFINTCOM capability.

I can tell you that we're fortunate that Canada is part of the consortium of Five Eyes countries that contribute to the intelligence community. Here at NORAD I get briefed on a regular basis by the staff within the intelligence directorate on upcoming events, elements to be aware of, capabilities that are forthcoming and the like at the different levels of classification.

In this case, in terms of surveillance, obviously we monitor when there's an element that pops up that could be of concern or pose a threat to North American airspace. At that point I am made aware, just as the commander is made aware.

General Prévost, is there anything from a CFINTCOM perspective?

MGen Paul Prévost: I think the answer was good, Mr. Chair.

The Five Eyes community is tracking those issues. Regardless of who owns the capability, the information is shared among the Five Eyes members. The intelligence community was tracking those balloons, and when they became a concern for North America, then NORAD, Ottawa and Washington started talking.

The Chair: Mr. Kelly, you have five minutes. Go ahead, please.

Mr. Pat Kelly: Thank you.

I'd like to talk about the transparency aspect of this recent series of episodes.

The Canadian public was informed, largely through announcements made by the Americans, that there had been a transgression of Canadian airspace. When it was known that the object was over Montana, it obviously would have had to come through Canadian airspace, although it would have been in American airspace even earlier.

Can either witness discuss what is considered normal—if there is a normal—practice for informing the public of these kinds of episodes?

● (1005)

LGen Alain Pelletier: I'll start off, and then I'll let General Prévost expand on the notification to the Canadian public.

I just want to highlight that part of our standard practice—and we continue to normalize practices as the situation evolves—is that if something happens in Canadian airspace, we obviously leverage the Canadian NORAD region to contribute to the operational picture at NORAD headquarters.

When there's an element of concern, part of our process is to detect, track, identify and characterize unknown objects coming into the airspace. We need to do that. We're not out there on the social media platforms saying, “Hey, we've detected something.” The job for us is to get to an identification and characterization of potential unknowns.

That's what we do—

Mr. Pat Kelly: I understand, and I'm not criticising the timing, but I would note that it seems that the minute it hit the Montana border was when the world knew it was there.

Is there a difference in the protocols of Canadian and American authorities on this?

LGen Alain Pelletier: I don't think there's a difference in protocol. It's just that when the first high-altitude surveillance balloon crossed into Montana, its proximity to some sensitive American systems probably escalated the decision to make that fact public at that point.

You need to realize that while it was on its flight path, both countries wanted to not only characterize but also understand and attempt to explore it so that we could understand the objectives and intent behind the flight path of the surveillance balloon.

Mr. Pat Kelly: Do these kinds of surveillance balloons routinely fly over Taiwan?

LGen Alain Pelletier: Good question. I'll let General Prévost—

I'm focused on the North American airspace.

General Prévost, do you want to elaborate on that?

Mr. Pat Kelly: I'd like a quick answer to that question and then follow up to talk about North America.

Go ahead.

MGen Paul Prévost: I don't have that answer.

Mr. Pat Kelly: Okay. It seems there had been reports that these balloons are frequently deployed there, so we're left to wonder why NORAD appears to be at least somewhat surprised by this and that this is not something that is normally dealt with or anticipated within North American airspace. Is that a correct assessment?

LGen Alain Pelletier: It's not that NORAD is surprised, because we monitor the evolution of systems that could potentially pose a threat or could be of concern to both governments and military operatives, but in this case, it is once these systems approach North America that we start the standard process of the detection, tracking and ID. I would not say we're not concerned or we have no interest; we monitor the evolution of systems—not only high-altitude surveillance balloons, but also other capabilities that may be in the air or space domain, and, for that matter, in the maritime domain as well, Mr. Chair.

● (1010)

The Chair: Sorry, Mr. Kelly, but your time's up.

Go ahead, Mr. May, for five minutes.

Mr. Bryan May (Cambridge, Lib.): Thank you very much, Mr. Chair.

I will be sharing my time with you, the honourable chair.

Gentleman, thank you, first of all, for being here with us this morning. Thank you for the work you're doing and continue to do.

I'm going to shift gears a little bit, because I think we've exhausted this topic to a certain extent. I really want to focus in on NORAD modernization.

Obviously, we made the announcement in June to commit the better part of $40 billion to NORAD modernization over the next 20 years. I'm wondering, sir, if you could elaborate on what we have done in recent months or years to modernize NORAD and specifically what is coming. What capabilities do we need to invest in?

LGen Alain Pelletier: First of all, I'm going to say that the modernization of NORAD starts not necessarily with capabilities but rather with the personnel. They are the ones here at NORAD across all three regions, whether Canadian or American, who really make NORAD relevant to our competitors and adversaries, because they're the ones who always go above and beyond their own skill sets in order to do the mission that I talked about earlier.

I truly appreciate the Canadian government's announcement as it relates to NORAD modernization to get after the number one priority of General VanHerck, which is domain awareness. What do we mean by domain awareness? It's having a better understanding of what is in the Canadian-U.S. airspace or on the approaches to that Canadian-U.S. airspace, as well as within the maritime domain from where threats may originate, given the ability of submarines and surface vessels to launch cruise missiles as well. NORAD modernization is going to do just that.

We believe that the arrival of over-the-horizon radar will give us the ability to not only better sense inside the domestic airspace but also on the approaches, and not only on the polar or Arctic avenue of approach but in a 360-degree range. NORAD modernization, combined with the announcement that the U.S. will acquire four over-the-horizon radars, will give us close to a 360-degree picture in order to better characterize elements that may be on the approaches, including over the Arctic Ocean. It will give us not only that radius or azimuth but also range. That's one of the elements.

The other piece is getting after modernizing our command and control system, which the Americans are doing across all of their services, and moving forward with new modernized command and control that will enable NORAD not only to sense what's approaching but also to make sense of the data that we've captured so that we're able to better make decisions as military and give our decision-makers in both governments the required time to make those decisions.

Mr. Bryan May: Thanks, Mr. Chair.

The Chair: Thank you.

In the few seconds that my colleague has provided, as I sit here and listen, I wonder whether we've looked at this from the wrong end. This seems to me to be a treasure trove of intelligence for the Communist Chinese government. They've watched NORAD scramble. They know where you scrambled from, what assets you put in play, the time at which it became public, etc. Although I doubt you can share this, I rather hope that there will be some reflections on the extent of your domain awareness and whether you have to tweak the current radar systems, as well as some reflection that this may influence how you look at domain awareness in the future.

I appreciate that I'm asking a question that probably can't be answered in a public sphere, but it strikes me that the Chinese got a really good look at North American defences, and they got it really cheap. For the price of a balloon in the airspace, they watched how we scramble.

I'll leave it at that, because I'm already over time, and if I'm going to discipline colleagues, I have to discipline myself.

Colleagues, I think that we could go for one more six-minute round and then we'll call it a day. Is that acceptable?

Some hon. members: Agreed.

The Chair: With that, I'll call on Mr. Bezan for six minutes.

● (1015)

Mr. James Bezan: Thank you, Chair. You know you always have the chair's prerogative to use more time, if you wish.

The Chair: I know some chairs use that prerogative, Mr. Bezan.

This is a chair joke.

Mr. James Bezan: You could just start the clock now.

There's a question that I think has been asked in the media, and I think most of us have had the same question. Why would the Communist regime in Beijing use a surveillance balloon versus the spy satellites that they already have?

In the professional opinion of both General Pelletier and General Prévost, what are we talking about as equipment? What have you been able to observe on this high altitude balloon that makes it important to the Communist regime in Beijing, versus what they can already pull off their satellites?

LGen Alain Pelletier: Thanks for the question, Mr. Chair. I would have loved to answer the chairman's, question but I'll stick to the member's question.

The Chair: Feel free.

LGen Alain Pelletier: I mentioned earlier that there's an element of persistence and maybe proximity, because low-earth orbit satellites are still low-earth orbit, which is slightly more distance than the high-altitude surveillance balloon. That would be my first answer, but I would defer to the PRC to answer the technical and capability questions.

Go ahead, General Prévost.

MGen Paul Prévost: Thank you for the question. I think you can probably link the chair's question and member Bezan's question. There's clearly a surveillance gap that we don't understand, but there are probably better capabilities they can enjoy there.

I think, more importantly, that China is trying to figure out our limits. This was an unwanted, unauthorized breach of our sovereignty. They probably wanted to know how tolerant we are of that, and I think we've shown the response of how tolerant we are of the breach of our sovereignty. There are probably both there.

That's me speculating, but for sure, the response was there.

Mr. James Bezan: There's no question that this was a provocation by the PRC, and we had to respond.

On the observation of the equipment, it's the size of two or three city buses hanging underneath that balloon. Were we able to determine whether or not they had radio frequency and were able to communicate back to Beijing, or did our ability to jam it make sure that whatever it was collecting stayed within the infrastructure on that platform and we're able to recover that now?

LGen Alain Pelletier: Obviously, for reasons of classification at this point, Mr. Chair, we're unable to actually answer that question. That's an analysis that is ongoing, especially with the high-altitude surveillance balloon, by the U.S. We'll be standing by, from a Canadian perspective, for additional sharing, and when—

Mr. James Bezan: I appreciate that this is an unclassified briefing, so I appreciate that answer.

Moving on, just to follow up on the previous question, it was reported last week that NORAD intercepted four Russian military aircraft—fighter jets or bombers—coming up on Alaskan airspace. We used to hear quite regularly about Russian military aircraft approaching Canadian airspace that Canadian CF-18s had to scramble to intercept.

There hasn't been any reporting for quite some time. Is it because Russia is no longer coming into our air identification zone or are we just not being transparent and reporting it back to the Canadian public?

LGen Alain Pelletier: I can tell you that transparency is at the forefront of NORAD. We try to actually inform—within the limits of operational security, obviously—the Canadian public of our activities so that they understand what we do and what the great Canadians and Americans within the alliance here at NORAD do.

I don't drive the training plan of Russian long-range aviation. There have been cycles, as I've mentioned. We've seen up to 15 and an average of six to seven intercepts per year. A good chunk of that, just by pure proximity, happens to be close to the Alaskan identification zone. We've seen Russian activities that sometimes move on from the Alaskan NORAD region to the Canadian NORAD region, to which CANR has been very agile in responding, either by deploying directly from Cold Lake or by moving fighters to one of our forward operating locations in the north.

We have seen it. It's just that in last couple of months the preponderance of the activities has been focused on the Alaskan NORAD region.

● (1020)

Mr. James Bezan: Let's switch gears and follow up on Mr. May's question about NORAD modernization.

We've technically always been worried about Russian air incursions, but now, with the People's Liberation Army in China becoming more aggressive, and now a new platform that we have to deal with, how are we going to deal with changing our focus on the multiple levels of potential aerial threats and maritime threats that North America is facing?

When we talk about continental security and NORAD modernization, how are we going to change installing our over-the-horizon radar systems, updating our North Warning System, dealing with our RADARSAT and installing more low-earth orbit satellites to ensure we can detect all of these threats, whether it's high-altitude balloons that have potential to carry weapons, or fighter aircraft or bombs or hypersonic missiles that we're starting to witness being used more?

The Chair: Even with Mr. Bezan's additional free 17 seconds, he's way past time. I'm sorry.

Mr. James Bezan: I'm sorry about that, Mr. Chair.

The Chair: Mr. Sousa, you have six minutes.

Mr. Bryan May: No, I'll take it, Mr. Chair.

The Chair: Okay, Mr. May.

Mr. Bryan May: I'll try to leave you a little more time in which to elaborate on your earlier question, Mr. Chair.

I was just saying to Mr. Sousa that Mr. Bezan stole my question, so this is perfect. My question was going to be that given the NORAD modernization strategy and the events of the last couple of weeks, what has changed, if anything, in that assessment of what we need? Obviously, if you want to answer Mr. Bezan's direct question as well....

LGen Alain Pelletier: Okay. Thanks for the question. Actually, I'll roll all the questions from the chairman and the two members into an answer, hopefully.

First of all, General VanHerck expressed that Russia and China have been monitoring our activities for the last 20 years while Canada and the U.S. have been focused abroad on counter-VEO, on countering violent extremist organizations. They've developed capabilities that challenge NORAD right now. We haven't talked about hypersonic vehicles and the advancement in cruise missiles, let alone...and that's only of the threat; it's also the same thing with the delivery vehicles.

NORAD is monitoring closely, with the intelligence community, the evolution of capabilities so that we're positioned to actually face that threat. NORAD has done the pivot to focus on not only the north-south and over-the-Arctic Russian potential threats; we're also including Russia in our cross-checking and in our planning as well, so that our plans are relevant to the threats of today and tomorrow. General VanHerck has mentioned that Russia is the threat we face right now, and China is only five to seven years behind with capabilities that will threaten North America in the near future.

That pivot has happened in our planning. We're looking at not only our pure capabilities—that is, fighters, missiles, tankers, and airborne early warning capability—but also sensors and basing as well so that we're postured in the future to be able to actually counter the threat, whether it comes from Russia or from China, through a lens of not only north or west but rather through a lens of 360° and across all domains.

Even though our mission is focused on airspace warning, airspace control and maritime warning, we're dependent on all domain information sources to better understand and characterize our potential adversaries' activities.

● (1025)

Mr. Bryan May: Thank you, General.

I believe my colleague Mr. Fisher might have a quick question.

Mr. Darren Fisher: Thank you, Mr. May.

General Pelletier, I think you may have actually answered this question before I asked it when you talked about threats of today and threats of tomorrow and a pivot in planning.

Is there a group sitting down now, talking about these current events and coming up with a plan for a procedure on how to deal with something like this, after this fourth one has occurred? Is this something that's happening now? Is there a planning session on how to proceed in the future?

LGen Alain Pelletier: In NORAD, related to the current event, there's been an ongoing assessment of the activities from not only an intelligence perspective but also an operational perspective involving the regions involved. That happened literally after the high-altitude surveillance balloon and continued after the first object was detected and the one that was actually shot down in Alaska. There's a continuing assessment of the capabilities and also the procedures and processes we follow so that we can seamlessly execute and so that our information exchange with each respective national leadership is as seamless as we can make it. It is happening.

Plus, I had the privilege to be in Ottawa and have discussions this week with colleagues. At the end of the day, what makes us successful is not only those of us in uniform; we're leveraging those intradepartmental colleagues in order to actually get us to mission success. This includes our collaborations with the Federal Aviation Administration in the U.S., Nav Canada, Transport Canada and a number of other agencies and departments so that we can actually deliver the mission.

The Chair: We still have a minute left, Mr. Fisher.

Mr. Darren Fisher: I'll give it to Charles.

The Chair: Go ahead, Charles.

Mr. Charles Sousa: Thank you again.

To reaffirm the question by the chair, could this be a ruse by China to test our defences and capabilities, given that it would be so obvious that we would see the balloon out there and it would be caught pretty quickly? Could this be China testing us?

LGen Alain Pelletier: Thanks for the question.

As discussed by General Prévost—and I believe this as well—this could be one of the options, especially as it relates to the high-altitude surveillance balloon. Again, with regard to the other three objects that were detected, it's too early to tell where they're coming from, what their capabilities and capacities are, and the intent behind the actual use itself.

I think we shouldn't rule out options. We need to continue to look at how our daily activities, responses, postures and capabilities could be looked at and exploited in the future. We have a tendency to think short-term. Other nations have a tendency to look at their long-term postures as well.

The Chair: Thank you, Mr. Sousa.

[*Translation*]

Mrs. Desbiens, you have the floor for six minutes.

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

Gentlemen, I assume you may both be from Quebec based on your family names, your first names and the quality of your French. We are very proud to have you with us and to know that you are perhaps from Quebec.

With that in mind, for the Quebecers watching us, you mentioned earlier that you quite regularly—seven, 10 or even 15 times a year—observe and intercept foreign aircraft in neighbouring airspace, mostly along the West Coast.

What about the East Coast? Have you made the same type of intercepts in Quebec or along the East Coast of North America, for example?

● (1030)

LGen Alain Pelletier: Thanks for the question.

Yes, in the past, we have had intercepts on the East Coast or the northeast flank of NORAD near the Arctic Archipelago. That's why we maintain forward operating locations that allow us to respond to those incursions into the air defence identification zone, and not into the immediate airspace of Canada or the United States. These bases mean that we can respond on the East Coast, northeast flank, northwest flank or West Coast.

We last saw any such aircraft on the West Coast, not directly in Alaska, in 2014 or 2015.

Mrs. Caroline Desbiens: Since then, have you seen any suspicious activity in Quebec?

LGen Alain Pelletier: No, nothing. To characterize the aircraft approaching our shores, we need to identify them, determine if they have any weapons on board and analyze their behaviour to see if they pose a threat.

We also analyze existing intelligence from the preceding weeks and months to ensure there is no hostile intent towards Canada or the United States. This analysis is done on a regular basis, whenever Russia or any other nation deploys strategic assets approaching Canada or the United States.

Mrs. Caroline Desbiens: Thank you.

My next question is for Major General Prévost or Lieutenant-General Pelletier.

As elected officials, we sometimes get the opportunity to ask the government about its intentions, plans or how much it wants to invest in the future to secure our territory.

After this two-hour meeting, what would you recommend to the members here in the room?

What could we do to support you, to carry your message further?

Do you have any specific requests or pressing needs that are more urgent, which we could rally around and make sure your message is heard?

I know you're able to get your message out very directly, but we too have a job to do as parliamentarians.

LGen Alain Pelletier: I'd like to thank the member for the question.

We had the privilege of welcoming the senators here to NORAD Headquarters last week. First, I'm going to tell you the same thing I told them. I'm grateful for the committee members' interest in national defence and defence in general.

What's important to us is that the Canadian public and committee members understand our mission and our desire to be transparent. Canadians need to understand that the threat continues to evolve. We're in a very complex operating environment around the world, and we owe it to ourselves to continue to monitor that environment in terms of the threat that it may pose not only to Canada directly, but to the democratic system we live in and value.

To do that, we need to continue to assess the needs of the Canadian Armed Forces and NORAD so that they can fulfill their mission, which is precisely what the Canadian government did in the NORAD announcement. That information is intended to ensure that people understand the mission and the limitations, but also the improvements for which we are advocating so that the Canadians and Americans involved in the mission can continue to meet the Canadian people's expectations.

● (1035)

[*English*]

The Chair: Thank you, Madame Desbiens.

The final word goes to the NDP for six minutes.

Ms. Lindsay Mathyssen: Amazing.

A lot of my questions were actually brought up by the chair and my other colleagues, in fact, about testing by the Chinese government about how they're watching our speed of reaction, the processes we use and how we communicate.

If this is the thought process that we have to be aware of and careful of, how do we ensure that we continually remain transparent to the Canadian public? I know there's a lot of information going back and forth. There was a lot of confusion. It's led to the confusion here in our many questions. How do we ensure that transparency and clarity are maintained?

I'd also like to throw this in there. In terms of our reaction, the Chinese government has responded by saying these are not hostile balloons. What does our seemingly somewhat hostile reaction do to the overall level between both of our...well, the NORAD group, but the Chinese government? Is it seen as as hostile reaction?

How do we factor NORAD and the decisions that are made into the risk assessments that you talked about earlier?

LGen Alain Pelletier: Given the angle of the member's question with regard to international affairs and the transparency of the department, I'll let General Prévost start. I may add to that afterward.

MGen Paul Prévost: First, on the question of transparency, we're as transparent as we can be. Sometimes as these operations unfold, there's an element of operational security. You've seen this week that we've talked to you about the Russian incursions in the north. We started talking about the balloon when it started to be of concern to NORAD, the United States and Canada. We're committed to transparency.

On the issue of China, I think I've expressed it already. They are pushing the bubble. There's no doubt that this was a breach of sovereignty. Obviously we're going to try to have more discussions with China when we find out more about what exactly was on this balloon. We're committed to transparency with Canadians. We obviously will try to have discussions with China on that. Those discussions occur already. We saw that their answer was that it was non-hostile, but for sure there was a breach of sovereignty, and we needed to assert our sovereignty. I think that's what happened in both Canada and the U.S.

LGen Alain Pelletier: Good.

I'll add the element of NORAD headquarters engagement in transparency to both government and military apparatus in the U.S. and Canada. It's part of our inherent process that we exercise daily and weekly, not only at the tactical level but all the way up to me and the commander on activities such as Operation Noble Eagle following 9/11 and the like.

Those exercises are so that the passage of info is made as early as possible to the right level of government, so that we provide our decision-makers with key decision time to assess the situation and provide direction as required.

Ms. Lindsay Mathyssen: You referenced that tolerance test for what we're willing to see or how we're willing to deal with these unknown objects.

In the press conference yesterday, I believe President Biden said that they are reviewing these processes. General Pelletier, you mentioned consistently reviewing the processes for how we deal with them going forward from the very first incident.

Biden suggested that potentially there are other avenues we could take. Could you explain a bit more? Is our only opportunity for stopping these unknown objects to shoot them down because of the threat and that level of risk? Are there alternatives?

I consider that in terms of the fact that when NORAD, or our allies, did shoot down the unknown object over Lake Huron, the first missile missed.

What are the other opportunities that we have to stop them?

● (1040)

LGen Alain Pelletier: I can assure you that we look at the depth of the tool bag and assess what's possible all the way up, short of the kinetic response of the missile or gun employment. We're always trying to minimize the collateral damage, not only from the use of the weapon but also because of the follow-on impact of potential debris on the ground. That's part of our element.

We look in the tool bag. That may include non-kinetic capability. In this event, the best tool available to NORAD at the time was the use of fighters and of the specific AIM-9X missile.

We're not stopping short. We are going to continue to look at what else is required to carry out the mission.

The Chair: Thank you, Ms. Mathyssen.

On behalf of the committee, I want to thank you, General Pelletier and General Prévost, for your appearance before this committee and for the thoroughness of your answers within the limitations under which you operate. I particularly appreciate your putting facts into the public realm so that discourse in the public realm is informed by fact, as opposed to fantasy and conspiracy theories, etc. These two hours alone have been useful for informing public dialogue, and we appreciate it.

I anticipate that we will likely see you again before the committee, but, again, we can't thank you enough for your appearance here.

Colleagues, before we adjourn, we need to do a little bit of housekeeping. We need to pass the budget for the conspiracy theory—

Voices: Oh, oh!

The Chair: No, I mean the study on cyber. I get all my news from a certain television station.

You've all received this electronically.

It's about $9,000. Is that correct?

The Clerk of the Committee (Mr. Andrew Wilson): It's $11,450.

The Chair: Okay.

For that study, I need a motion.

Thank you, Mr. May. I need a seconder.

Thank you, Mr. Kelly.

Is there any debate?

I see none, so the motion passes.

(Motion agreed to [*See Minutes of Proceedings*])

The Chair: Thank you very much.

Colleagues, have a good two weeks. The meeting is adjourned.