



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

AN INTERIM REPORT ON THE DEFENCE OF CANADA IN A RAPIDLY CHANGING THREAT ENVIRONMENT

Report of the Standing Committee on National Defence

Hon. John McKay, Chair

**JUNE 2022
44th PARLIAMENT, 1st SESSION**

Published under the authority of the Speaker of the House of Commons

SPEAKER'S PERMISSION

The proceedings of the House of Commons and its Committees are hereby made available to provide greater public access. The parliamentary privilege of the House of Commons to control the publication and broadcast of the proceedings of the House of Commons and its Committees is nonetheless reserved. All copyrights therein are also reserved.

Reproduction of the proceedings of the House of Commons and its Committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the *Copyright Act*. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a Standing Committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the *Copyright Act*.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its Committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

Also available on the House of Commons website
at the following address: www.ourcommons.ca

**AN INTERIM REPORT ON THE DEFENCE OF
CANADA IN A RAPIDLY CHANGING THREAT
ENVIRONMENT**

**Report of the Standing Committee on
National Defence**

**Hon. John McKay
Chair**

JUNE 2022

44th PARLIAMENT, 1st SESSION

NOTICE TO READER

Reports from committees presented to the House of Commons

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

STANDING COMMITTEE ON NATIONAL DEFENCE

CHAIR

Hon. John McKay

VICE-CHAIRS

Hon. Kerry-Lynne Findlay

Christine Normandin

MEMBERS

Dean Allison

Darren Fisher

Cheryl Gallant

Emmanuella Lambropoulos

Lindsay Mathysen

Bryan May

Glen Motz

Jennifer O'Connell

Yves Robillard

OTHER MEMBERS OF PARLIAMENT WHO PARTICIPATED

Raquel Dancho

Todd Doherty

Ted Falk

Iqwinder Gaheer

Mike Kelloway

Eric Melillo

Pierre Paul-Hus

Alex Ruff

Sven Spengemann

Sameer Zuberi

CLERKS OF THE COMMITTEE

Grant McLaughlin

Andrew Wilson

LIBRARY OF PARLIAMENT

Parliamentary Information, Education and Research Services

Martin Auger

Katherine Simonds

THE STANDING COMMITTEE ON NATIONAL DEFENCE

has the honour to present its

FIRST REPORT

Pursuant to its mandate under Standing Order 108(2), the committee has studied Threat Analysis Affecting Canada and the Canadian Armed Forces' Operational Readiness to Meet Those Threats and has agreed to report the following:

TABLE OF CONTENTS

LIST OF RECOMMENDATIONS	1
INTERIM REPORT ON THE DEFENCE OF CANADA IN A RAPIDLY CHANGING THREAT ENVIRONMENT	5
Introduction.....	5
A Rapidly Changing Global Security Environment	7
Defining Threats	7
The Return of Global Power Competition.....	8
The Threat From China and the Security Situation in the Indo-Pacific Region	10
The Threat From Russia	12
China–Russia Military Cooperation.....	14
Rapid Emergence of New Military Technologies	15
Cyber, Cognitive and Hybrid Warfare Threats.....	16
Other Threats	19
Canada, the North Atlantic Treaty Organization and the War in Ukraine.....	21
The War in Ukraine and the Condemnation of Russia.....	22
Canada’s Contribution to the North Atlantic Treaty Organization	24
Canada’s Operation REASSURANCE.....	26
Canada’s Support for Ukraine.....	29
Canada and Continental Defence.....	32
North American Aerospace Defense Command and Its Modernization	32
Arctic Security and Sovereignty.....	36
Domestic Operations and Military Aid to the Civil Power.....	40
Improving the Operational Readiness of the Canadian Armed Forces.....	44
Developing a New Defence Policy.....	44
Increasing Defence Spending.....	46
Resolving Recruitment and Retention Challenges	48

Reforming and Accelerating Defence Procurement.....	51
Investing in Cognitive and Cyber Warfare Capabilities.....	52
Increasing Canada’s Military Presence in the Indo-Pacific Region	54
Conclusion and Recommendations	57
List of Proposed Recommendations.....	58
APPENDIX A LIST OF WITNESSES	61
APPENDIX B LIST OF BRIEFS.....	65
REQUEST FOR GOVERNMENT RESPONSE	67
SUPPLEMENTARY OPINION OF THE CONSERVATIVE PARTY OF CANADA	69
SUPPLEMENTARY OPINION OF THE NEW DEMOCRATIC PARTY OF CANADA	71

LIST OF RECOMMENDATIONS

As a result of their deliberations committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.

Recommendation 1

That, in light of the current situation in Ukraine and rising tensions between the North Atlantic Treaty Organization and Russia, the Government of Canada increase annual defence spending to meet the 2% of gross domestic product commitment agreed to by NATO members in 2014..... 58

Recommendation 2

That, in concert with increasing the amount allocated to defence spending, the Government of Canada undertake a review of the current defence policy and undertake more frequent defence policy reviews, at a minimum every four years, to ensure that Canada and the Canadian Armed Forces make the right decisions, invest in the right capabilities, and remain ready to address existing and future threats, as well as rapid changes in the global security environment..... 58

Recommendation 3

That the Government of Canada consider the establishment of a long-term military presence in Europe as a contribution to the North Atlantic Treaty Organization’s defence and deterrence measures against Russia. 59

Recommendation 4

That the Government of Canada continue to increase military aid to Ukraine by providing additional lethal and non-lethal military equipment. The Government should also consider providing other forms of military assistance, as well as humanitarian aid. 59

Recommendation 5

That the Government of Canada continue to invest in modernization of the North American Aerospace Defense Command. As well, on an expeditious basis, the Government should make investments designed to replace the North Warning System. 59

Recommendation 6

That the Government of Canada enhance Canada’s Arctic and maritime domain awareness by investing in research and development and acquisition of advanced and innovative surveillance technologies. The focus of these efforts could include drones, satellites and other space-based assets, surface and underwater sensors, underwater autonomous vehicles and modern ground-based radar systems. The Government of Canada procure the capabilities that the Canadian Armed Forces needs to ensure Canada's security, sovereignty, and multi-domain awareness in the Arctic and in all of its maritime approaches. 59

Recommendation 7

That the Government of Canada strengthen Arctic security and sovereignty by expanding and enhancing equipment, training and logistical support to the Canadian Rangers..... 59

Recommendation 8

That the Government of Canada increase the presence of the Canadian Armed Forces, both Regular and Reserve, in Canada’s North, and invest in the infrastructure required to support this increased presence; and that the Government explore the establishment of additional Reserve units in Canada's three territories. These efforts should be undertaken in consultation with relevant Indigenous peoples and communities. 59

Recommendation 9

That the Government of Canada ensure that Canadian Armed Forces personnel are adequately resourced and trained to operate and defend themselves in a cognitive warfare environment. 60

Recommendation 10

That the Government of Canada invest in defensive and active cyber operations capabilities. As well, the Government should increase its recruitment and training of cyber specialists in the Canadian Armed Forces and the Communications Security Establishment, and ensure that all federal systems are adequately protected against cyber threats..... 60

Recommendation 11

That the Government of Canada establish strategies, policies and processes designed to ensure the Canadian Armed Force’s ability to recruit a greater number of, as well as more diverse and skilled, personnel. As well, measures should be put in place to improve the retention rate in the Canadian Armed Forces. Finally, the Government should ensure that all Canadian Armed Forces personnel receive adequate training and are properly equipped..... 60

Recommendation 12

That the Government of Canada reform defence procurement processes in Canada to ensure that major weapons systems and military equipment are delivered to the Canadian Armed Forces more expeditiously. 60

Recommendation 13

That, as soon as possible in order to avoid a capability gap, the Government of Canada launch a procurement project to replace Canada’s Victoria-class submarines. Under that program, the Government should acquire a class of submarines that would be capable of operating in all maritime environments, including the Arctic..... 60

Recommendation 14

That the Government of Canada consider increasing its military investments and presence in the Indo-Pacific region. As well, the Government should develop defence partnerships with like-minded countries in the region. 60

INTERIM REPORT ON THE DEFENCE OF CANADA IN A RAPIDLY CHANGING THREAT ENVIRONMENT

INTRODUCTION

The global security environment is constantly changing, and it has become increasingly dangerous and challenging in recent years with the emergence of new and complex threats, shifting power dynamics and rapid advancements in military technologies. According to a number of academics, as well as government and military officials, the global threat assessment today has evolved from that which existed five years ago when the Government of Canada released its defence policy: “[Strong, Secure, Engaged](#).”

A number of threats have been known to exist for many years, and have been examined by the House of Commons Standing Committee on National Defence (the Committee) in several past reports.¹ However, the return of global power competition and rising tensions with some countries—particularly China and Russia—have caused instability and conflict in several regions of the world, and led to deteriorating relations between the North Atlantic Treaty Organization (NATO) countries and Russia, particularly after Russia launched a full-scale invasion of Ukraine in February 2022.

Canada is not immune to emerging threats and changes in the global security environment. The world is increasingly interconnected, and threats emanating from foreign sources can seriously disrupt Canadians’ lives, and negatively affect security in Canada specifically and North America more broadly. In the current threat environment, Canada must remain vigilant and ready to protect its homeland, to cooperate with the United States in defending the shared continent, and to contribute to global peace and security through participating in multinational organizations—such as NATO and the United Nations (UN)—and forging security partnerships with like-minded countries worldwide. For these reasons, the Canadian Armed Forces (CAF) must be adequately funded, staffed, trained and equipped. As well, the CAF must have the right capabilities

1 For example, see the following reports by the House of Commons Standing Committee on National Defence (NDDN): [Canada and the Defence of North America](#) (2015), [Canada and the Defence of North America: NORAD and Aerial Readiness](#) (2016), [The Readiness of Canada’s Naval Forces](#) (2017), [Canada’s Support to Ukraine in Crisis and Armed Conflict](#) (2017), [Canada and NATO: An Alliance Forged in Strength and Reliability](#) (2018), [Interim Report on Russia’s Interference in Moldova](#) (2018), [Responding to Russian Aggression Against Ukraine, Moldova and Georgia in the Black Sea Region](#) (2018), [Canada’s Task Force Mali](#) (2019) and [Canada’s Role in International Peace Operations and Conflict Resolution](#) (2019).



and the level of operational readiness needed to defend the country, its residents and its national interests, regardless of the type of threat.

In that context, on 31 January 2022, the Committee adopted a motion to study threats affecting Canada and the CAF's operational readiness to meet those threats. The [motion](#) states:

That ... the Committee conduct a study, of no fewer than 4 meetings, providing a threat analysis affecting Canada and the Canadian Armed Forces' operational readiness to meet those threats; including support for international security operations, such as the stability of NATO's eastern border, including ongoing efforts to support the Security Forces of Ukraine as well as its sovereignty and territorial integrity, emergent threats in the Indo-Pacific region; as well as domestic capacity to respond in support of civil emergencies; and that matters related to logistics, procurement and personnel be included as themes to this study, and that the committee report its findings to the House.

Between 2 February and 30 March 2022, the Committee held nine meetings on this study and heard from 32 witnesses, including Canadian federal government and military officials, academics and other stakeholders. The Committee also received written briefs submitted by individuals who did not appear.

This report summarizes witnesses' comments made when appearing before the Committee or in a brief, as well as other relevant publicly available information. The first section analyzes the ways in which the global security environment has changed in recent years, and highlights the most serious threats that Canada is currently facing. The second section examines Russia's invasion of Ukraine in February 2022 as well as rising tensions between NATO and Russia, and the impact of those tensions on Canada and its NATO allies. From a continental defence perspective, the third section considers how Canada is being affected by recent changes in the global security environment and growing tensions with China, Russia and other revisionist states. The fourth section addresses the CAF's current state of operational readiness, and identifies possible areas of improvement. The report concludes with the Committee's thoughts and recommendations.

A RAPIDLY CHANGING GLOBAL SECURITY ENVIRONMENT

During the study, witnesses told the Committee that the CAF faces a number of domestic and international challenges and commitments. New threats and technologies are prompting Canada to review its military capabilities and processes to ensure that the CAF remains relevant and ready to respond efficiently to a very rapidly evolving, increasingly complex and ambiguous international security environment. In particular, witnesses spoke about the definition of “threats,” global power competition, China and the Indo-Pacific region, Russia, military cooperation between China and Russia, new military technologies, cyber, cognitive and hybrid warfare, and other threats.

Vice-Admiral J.R. Auchterlonie, Commander of the Canadian Joint Operations Command, noted that the CAF is “very aware of the threats to Canada and the threats the [armed] forces need to address,” but added both that the global security environment is in constant flux and that many of the threats identified during the study are here to stay; those threats cannot be ignored. As stated by Lieutenant-General (Retired) Walter Semianiw, the world is increasingly interconnected, and threats of all sorts threaten Canada’s security, trade and way of life. Lieutenant-General (Retired) Semianiw contended that the time when Canada could claim that the country is “so far away from everything” that geographical location can be an element of Canada’s defence no longer exists; instead, instability and threats emanating from Europe, the Indo-Pacific region or other parts of the world directly affect the global peace and stability on which Canada’s security, economy and well being rests.

Defining Threats

Richard B. Fadden—former National Security Advisor to the Prime Minister of Canada, former Deputy Minister of National Defence and former Director of the Canadian Security Intelligence Service—defined “threat” as a combination of intent and capability to harm, and as “how a government, a minister, a group or a person chooses to view those actions potentially directed at Canada.” As Lieutenant-General (Retired) Semianiw explained, intent and capabilities “come together to determine the level of the threat, from low to high.” In indicating that “it’s difficult to find a country today that has stated an intent to challenge Canada’s ... sovereignty,” Lieutenant-General (Retired) Semianiw warned that “intent to cause harm can change very quickly.”

Colin Robertson, Senior Advisor and Fellow at the Canadian Global Affairs Institute, commented that threats to Canada today are “varied and deadly” as the global security environment continues to evolve rapidly. Mr. Robertson identified the following threats that Canada currently faces:



Climate change, pandemics, terrorism, poverty, and inequality. This devil’s brew accentuates state and inter-state conflicts, resulting in more displaced persons than at any time since the Second World War. Conflict itself is changing, with hybrid warfare, untraceable cyber-attacks, disinformation, drones and mercenaries. The United States, polarized in its politics, is less willing and able to carry the internationalist burden. A rising, aggressive China and a revanchist Russia mean the return of great power rivalry and a revival of the ideological and systemic divide between authoritarianism and democracy.

The Return of Global Power Competition

For the witnesses, the greatest threats facing Canada and its allies are the return of great power competition, and rising tensions with China, Russia, North Korea and other revisionist and increasingly aggressive states.

Dr. Fen Osler Hampson, Chancellor's Professor at Carleton University and President of the World Refugee and Migration Council, said that “the major threat is geopolitical,” and asserted that the “world is a much more dangerous place” today because of the “return to geostrategic competition and rivalry.” Dr. Hampson explained that:

[t]he international system is becoming highly competitive and unstable with the rise of China and Russia's resurgence. Both countries threaten their neighbours and aspire global influence. There are also regional actors—Iran and North Korea—that threaten their neighbours with new provocations, and instability in many parts of the world, including our own hemisphere.

Dr. David Perry, President of the Canadian Global Affairs Institute, expressed similar views. According to Dr. Perry, the most important global threat to have emerged since the release of “Strong, Secure, Engaged” in 2017 is the “return of great power competition,” which has “amplified” over the last five years as a result of growing tensions with increasingly “antagonistic great powers,” particularly China and Russia. Dr. Perry emphasized that those two countries “continue to invest in programs of widespread military modernization and employ those modernized armed forces, in concert with other elements of state power, in ways that threaten Canadian interests” and those of Canada’s allies. Moreover, Dr. Perry provided Russia’s recent invasion of Ukraine and growing tensions between China and neighbouring countries in the Indo-Pacific region as examples of the aggressive behaviour of Russia and China on the world stage.

As well, [Dr. Perry](#) characterized the return of great power geostrategic competition and rivalry as “the backdrop against which the ongoing reinvestment in Canada's military is occurring.” In Dr. Perry’s view, reinvestment in the CAF is needed to maintain Canada's commitments to national, continental and international security, and to enhance the CAF’s ability “to deter unwanted great power behaviour.” [Dr. Hampson](#) agreed, emphasizing that the return of great power competition and the increasing rivalry with China and Russia are forcing Canada and the CAF to “confront the challenges” of adopting a “two-front deterrence” approach to “contend with the growing military threat posed by both Russia and China.”

Canada is not the only country that is reinvesting in its military because of the return of great power competition. Rising tensions with China and Russia, as well as the rapidly deteriorating global security environment in recent years, have also prompted many other countries to invest in their militaries. According to the Stockholm International Peace Research Institute (SIPRI), global military spending grew from an estimated US\$1.67 trillion in 2015² to more than US\$2.11 trillion in 2021.³ In 2021, the five countries with the highest levels of military spending were the United States, China, India, the United Kingdom and Russia, which together accounted for approximately 62% of global military spending.

Global defence spending is expected to continue to grow in the coming years, driven largely by the rapid re-arming and expansion of militaries in North America, Europe and the Indo-Pacific region.⁴ For example, total military spending by the 30 NATO countries—which include Canada—exceeded US\$1.17 trillion in 2021, an increase of more than US\$278.00 billion over the 2015 level of nearly US\$895.68 billion. Increased military spending by the NATO countries is largely due to growing tensions with Russia since 2014.⁵ Similarly, the rise of China and the continued deterioration in the security environment in the Indo-Pacific region have prompted many of that region’s countries to increase their military budgets, and to expand the size and capabilities of their armed forces.⁶ Coincident with the growth in global military spending in recent years has been a rise in global arms sales and trading. According to SIPRI, total arms sales by the world’s

2 Sam Perlo-Freeman et al., “[Trends in World Military Expenditure, 2015](#),” Stockholm International Peace Research Institute (SIPRI) Fact Sheet, April 2016.

3 See Diego Lopes da Silva et al., “[Trends in World Military Expenditure, 2021](#),” SIPRI Fact Sheet, April 2022; SIPRI, “[World Military Expenditure Passes \\$2 Trillion for First Time](#),” 25 April 2022.

4 International Institute for Strategic Studies (IISS), *The Military Balance 2022*, 2022, pp. 28–317.

5 North Atlantic Treaty Organization, “[Defence Expenditure of NATO Countries \(2014-2021\)](#),” 31 March 2022.

6 IISS, *The Military Balance 2022*, pp. 28–317.



top 100 largest arms-producing companies totalled US\$531 billion in 2020, a 17.0% increase over the 2015 level.⁷

As indicated by [Major-General Michael Wright](#), Commander of Canadian Forces Intelligence Command and Chief of Defence Intelligence, “[g]reat power rivalry has once again emerged as the central feature of the international strategic environment, with a revisionist and resurgent Russia and a powerful China seeking to reshape the rules-based international order in ways that support their individual national interests and their authoritarian world views.” For Major-General Wright, it is more concerning that China and Russia are “increasingly ... enhancing their strategic co-operation in the diplomatic, economic and military spheres,” with “this co-operation ... occurring in many regions around the world, including the Arctic.”

The Threat From China and the Security Situation in the Indo-Pacific Region

Several witnesses referred to China’s threat to Canada. [David Mulroney](#), former Ambassador of Canada to the People's Republic of China, described China as “the greatest long-term threat” to Canada and explained that:

[t]his growing threat is fed by the conviction in [China] that weakness and decline in the west are ushering in unprecedented opportunities for global leadership. ... This ambition is collective, shared at the highest levels of the Communist Party, but it's also profoundly personal, the guiding star of China's paramount leader, Xi Jinping. It is fed by a dangerous overconfidence in China's capabilities and at the same time by nagging doubts that growing economic headwinds, demographic decline and mounting international push-back will deny China its global hegemony unless it moves quickly and decisively.

Since Xi Jinping became Paramount Leader of China in 2012, the country has shifted the way it approaches the rest of the world. There has been an intensification of expansionist foreign policy trends and rearmament, as well as new types of coercive and aggressive behaviour, particularly directed at states that the Chinese Communist Party views as acting in ways counter to its interests. According to [Mr. Mulroney](#), threats emanating from China are multiple, and include coercive trade behaviour, foreign interference, espionage, intellectual property theft, military expansionism, erosion of the rules-based international order, attacks on democracy, arbitrary detentions, human rights violations, and aggression within Canada directed against Canadian

7 Alexandra Marksteiner et al., “[The SIPRI Top 100 Arms-Producing and Military Services Companies, 2020](#),” *SIPRI Fact Sheet*, December 2021.

citizens. Concerning the last of these, Mr. Mulronev highlighted “harassment of members of the Chinese diaspora, as well as the many Tibetans, Uighurs and Falun Gong practitioners that China's Communist Party targets across [Canada,]” as well as “aggressive espionage” and “efforts to influence media and various levels of governments.”

In agreeing with Mr. Mulronev, [J. Paul de B. Taillon](#)—an academic—observed that “the greatest security threat to Canada's economic well-being is the increasingly pervasive intelligence and economic espionage threat orchestrated by the Chinese Communist Party.” In Mr. Taillon’s opinion, China’s strategic interest is “to become not just an international economic competitor but the only global superpower,” and to replace the United States and dominate the global commons. Mr. Taillon suggested that, to achieve that end, China is actively engaged in a wide range of subtle, diverse and sophisticated intelligence, espionage and foreign interference activities, including in Canada.

[Dr. Hampson](#) characterized China as the single most important threat to Canada. In Dr. Hampson’s view, although Russia poses a threat to NATO’s allies and partners in Europe, China is “bullying its neighbours” and “flexing its military power and muscle” in the Indo-Pacific region. In maintaining that the region has become “increasingly unstable” because of China's geostrategic ambitions, Dr. Hampson underscored a “disturbing pattern of aggression in China's behaviour” under Xi Jinping and emphasized China’s military buildup: between 2010 and 2020, China's military expenditures rose by 76% and the Chinese military’s war-fighting capabilities vastly improved; by 2030, the Chinese Navy is expected to be “more modern and bigger” than the U.S. Navy, which is currently the world’s largest navy.

According to [Elbridge A. Colby](#), Principal and Co-Founder of the Marathon Initiative, the “military threat China poses in Asia is real, severe and urgent,” and

China's armed forces have transformed from a relatively backward military 30 years ago to a truly top-tier one today, which the United States military finds very daunting. Moreover, the [People’s Liberation Army] is no longer just a territorial defence force; it's now a power projection military, one that can project and sustain dominant military power.

Mr. Colby said that China’s rapid rise as a competing superpower is of grave concern to the United States, especially from geostrategic, economic and military standpoints. In Mr. Colby’s opinion, the United States’ immediate goal is to deny China regional hegemony over Asia, which requires the United States to “sharply reorient its military emphasis towards the Western Pacific.” Mr. Colby commented that the downside of such a pivot to the Indo-Pacific region is that the United States will need to reduce its military



engagements in Europe and the Middle East, which will create “vacuums” in those parts of the world that allies—such as Canada and other NATO allies—will need to fill. As well, Mr. Colby stated that, “if the United States is worried about China dominating Asia, everybody else, including Canada, should be very worried.” In Mr. Colby’s view, “Canada should be very, very acutely concerned about the potential for Chinese domination of Asia.”

That said, [Dr. James Fergusson](#)—Professor at the Centre for Defence and Security Studies at the University of Manitoba’s Department of Political Studies—indicated that China is not a direct threat to Canada at the moment, and added that there is not “anything really significant in terms of Chinese intent and capabilities” that would constitute an immediate threat to North America. According to Dr. Fergusson, the Chinese are regionally focused right now, although they are “developing long-range capabilities to be able to threaten North America, and they can, of course, with their land-based [intercontinental ballistic missile] fleet and growing [submarine-launched ballistic missile] capability”; however, “for the time being, [the Chinese] are more a regional problem of the Asia-Pacific than they are a threat to North America.” However, Dr. Fergusson admitted that this situation might well change in the future, a statement with which [Mr. Fadden](#) agreed. According to Mr. Fadden, “in the medium to long term, [China is] absolutely” the most significant national security threat to Canada, and is “a strategic adversary.”

The Threat From Russia

Like China, witnesses regarded Russia as a growing threat to Canada and its allies. [Dr. Robert Huebert](#), Associate Professor with the University of Calgary’s Department of Political Science, noted how—since coming to power as Russia’s president—Vladimir Putin has demonstrated “both an intent and a desire to once again return Russia to a great power.” In Dr. Huebert’s opinion, Canada has been somewhat slow in recognizing Russia as a potential threat and many Canadians have downplayed Russia’s statements and actions over the last decade or so. To illustrate this point, Dr. Huebert alluded to how few Canadians viewed Russia as a possible military threat in the Arctic, despite ongoing Russian efforts to militarize the region, and referred to how Canadians downplayed the threats posed by new Russian weapon systems—hypersonic weapons, underwater autonomous systems and other types of delivery systems—that Canadians today regard as a “direct threat.” Dr. Huebert underscored that such weapons systems did “not simply appear in 2022”; instead, many of those weapons system programs were initiated between 2005 and 2010, and their existence had been known as early as the 2010s, “once again giving us warning.”

Although several witnesses spoke about the growing threat of Russia and rising tensions with that country since its full-scale invasion of Ukraine in February 2022, [Dr. Huebert](#) stressed that Russia's most recent invasion of Ukraine is not a new phenomenon and should not be regarded as a surprise; Russia has repeatedly used "force to redraw the maps of Europe" since Vladimir Putin became president. In emphasizing Russia's aggressive interventions against neighbouring states, Dr. Huebert and [Dr. Hampson](#) referred to the country's military interventions in Chechnya (1999–2009), Georgia (2008), Ukraine (since 2014), Syria (since 2015) and Kazakhstan (January 2022). According to Dr. Huebert, the Russian "threat to Canada in the context of both collective security and its own northern security" has been known to Canada for many years, but "now is the time that we're starting to really give full attention to" it.

[Pierre Jolicoeur](#), Associate Vice-Principal Research at the Royal Military College of Canada, and [Vice-Admiral \(Retired\) Darren Hawco](#), former Military Representative of Canada to NATO, discussed some of the reasons why, under President Putin, Russia has been aggressive on the world stage. They explained that President Putin is trying to: restore Russia to its former glory and regain its respectable status in the international order; protect Russia's interests and security; preserve Russia's sphere of influence; keep a buffer of countries around Russia that will comply with its demands; and—believing that NATO is a threat to Russia—stop NATO's eastward expansion and move the perceived threat that NATO represents away from the country's borders.

[Vice-Admiral \(Retired\) Hawco](#) indicated that, since 1997, 14 countries in eastern Europe have left Russia's sphere of influence and joined NATO, and President Putin does not want other countries—like Austria, Bosnia-Herzegovina, Finland, Georgia, Moldova, Serbia, Sweden or Ukraine—to join NATO. In Vice-Admiral (Retired) Hawco's view, President Putin believes that such an expansion of NATO and the disintegration of Russia's spheres of influence can be stopped by fomenting border disputes with neighboring states, as was the case with Georgia in 2008 and Ukraine in 2014. As Vice-Admiral (Retired) Hawco pointed out, "[i]f you have a border dispute, you can't join NATO." [Mr. Jolicoeur](#) emphasized that countries that cooperate with Russia—such as Kazakhstan and Belarus—"have no problems," but countries that do not cooperate—like Georgia and Ukraine—"run into problems."



In suggesting that Russia poses a direct threat to Canada in a number of ways, [Mr. Jolicoeur](#) stated:

Threats against Canada could come in the form of cyber-attacks. ... Russia could directly attack our infrastructure or our government institutions using cybernetics. Russia could also organize misinformation campaigns or operations to spread propaganda, deride Canadian efforts, weaken Canada's social fabric and lead Canadians to disagree with their own government's decisions. ... Another kind of threat Russia could pose to Canada is to threaten Canada's territorial integrity. In other words, it could attack. ... [However, this threat is] very unlikely, because Canada is a member of NATO. An attack on Canada would mean that all NATO countries would have to return the fire.

Mr. Jolicoeur added:

Another type of threat would be to use the Russian community in Canada. Russia could try to manipulate the Russian-speaking community or Russian-born nationals in Canada. Finally, Russia may attack Canadian troops ... in Eastern Europe participating in the UNIFIER and REASSURANCE missions ... through propaganda or misinformation campaigns.

China–Russia Military Cooperation

Several witnesses described the intensified cooperation between China and Russia as a source of growing concern to Canada and its allies. [Dr. Hampson](#) commented that those two countries “challenge the current political and military order,” with [Mr. Colby](#) suggesting that “Russia and China are more aligned today than they have been probably since the period of Mao Zedong and Joseph Stalin.”

With a focus on NATO’s concern about the strengthening of relationship between China and Russia, [David Angell](#)—Canada’s Ambassador and Permanent Representative to NATO—commented that NATO is closely monitoring not only Russia, but also China, particularly the latter’s military modernization and its “growing military co-operation with Russia,” which is “cause for concern.” [Major General Wright](#) explained that, at the start of Russia’s recent invasion of Ukraine, there were very serious concerns that China might “take the opportunity” to “accelerate” its “own plans for greater control of [its] near abroad, specifically Taiwan.”

However, not all witnesses believed that China–Russia cooperation should be of great concern in the long run or that their cooperation will endure. According to [Mr. Fadden](#), cooperation between these two countries should not be regarded as anything more than tactical: “[I]n the short term, Russia and China” will “collaborate with one

another,” but the cooperation is unlikely “to stay that way in the long term” for the following reasons:

[T]he differences in the power and influence on the planet today between Russia and China are such that they do not have and they will not have a strategic relationship of the sort we might have had between two countries that were more evenly based. I do think, on the other hand, that in the short term, their capacity to create mischief in the Indo-Pacific [region] and in Europe are increased because of [their tactical relationship]. In particular, if they start supporting each other on the cyber front, I think it will be quite significant.

In agreeing with Mr. Fadden, [Mr. Taillon](#) noted that Russia and China are “not natural allies” and have clashed with each other in the past, as was the case in 1962 during the China–Soviet Union border conflict along the Ussuri River. Mr. Taillon said that, “right now, the enemy of my enemy is my friend. ... To have the Russians basically support the Chinese on Taiwan means that the Chinese will be more than happy to support them on [Ukraine].” In Mr. Taillon’s opinion, the likely duration of the China–Russia relationship is unknown because the two countries are competing powers on the world stage, including in the Arctic, and China views itself as a near-Arctic state with a desire to exploit resources in the Arctic; thus, Russia—which is militarizing its Arctic territories and regards its North Sea route as an internal waterway—sees China as “a possible threat.” In Mr. Taillon’s opinion, “there are going to be some interesting clashes on the northern side for both of them.”

Rapid Emergence of New Military Technologies

A number of witnesses highlighted the rapid emergence of new military technologies, noting that they pose a significant challenge for militaries worldwide and are prompting many countries—at great cost—to strengthen their defence capabilities and invest in deterrent measures. They drew attention to the proliferation of unmanned aerial systems and long-range, high-speed cruise missiles, as well as the rapid development of hypersonic and autonomous weapon systems; emerging threats in the space, artificial intelligence and cyber realms are also a challenge. For them, combined with existing military threats and a rapidly evolving global security environment, these technological threats require Canada and countries around the world to adapt continuously to a multi-domain threat environment.

[Dr. Hampson](#) emphasized China’s and Russia’s significant investments designed to modernize their militaries and equip them with the latest military technologies and capabilities so that they have an edge in combat against more powerful adversaries. In particular, Dr. Hampson mentioned the countries’ progress in developing sophisticated



new weaponry and military technologies, such as hypersonic weapons, ballistic and cruise missiles, nonstrategic systems equipped to carry nuclear or conventional warheads, directed energy weapons, autonomous weapon systems, anti-satellite weapons and cyber warfare systems.

[Mr. Colby](#) raised concerns about new weapons technologies emerging from China, stating that “[t]here are enormous breakthroughs going on, and we should no longer think of China in particular as playing catch-up” concerning military technologies. In describing China as “basically [now] at the forefront,” Mr. Colby referenced the country’s recent developments in hypersonic weaponry and warned that China “may exceed us ... in military technology capability by the end of this decade. We have a lot to be concerned about.” [Dr. Fergusson](#) acknowledged China’s recent testing of a fractional orbital bombardment system, describing it as “a potential threat ... for Canada.”

Cyber, Cognitive and Hybrid Warfare Threats

A number of witnesses described cyber threats as an immediate and pressing security concern for Canada. Regarding the frequency with which foreign actors attempt to compromise Canada’s cyber systems, [Mr. Fadden](#) speculated that there are probably “millions of [attempts] every day, multiple of millions, and this goes on day after day after day.” [Cherie Henderson](#), the Canadian Security Intelligence Service’s Assistant Director of Requirements, confirmed that “Canada regularly suffers thousands of cyber-threat attacks on a daily basis all across the country, and numerous organizations are under that attack.” In [Major-General Wright](#)’s view, cyber-threats are growing, and foreign states have used offensive cyber programs to target Canadian assets, including the financial sector, critical infrastructure and democratic institutions.

[Sami Khoury](#)—Head of the Communications Security Establishment’s Canadian Centre for Cyber Security—noted that, “while cybercrime is the most likely threat to impact Canadians ..., the state-sponsored cyber programs of China, Russia, North Korea and Iran pose the greatest strategic threat to Canada.” According to [John Hewie](#), National Security Officer at Microsoft Canada Inc., “58% of all nation-state cyber-attacks observed by Microsoft [during the past year] have been attributed to Russia, followed by North Korea, Iran and China.” Mr. Hewie emphasized that “Russian state actors are increasingly targeting government agencies involved in foreign policy, national security and defence.”

[Dr. Hampson](#) emphasized that cyber threats are not only about cyber attacks on Canada’s systems and the infiltration of social media, but also about stealing Canadian

intellectual property. In Dr. Hampson’s opinion, “one of the reasons why [China’s] Huawei is one of the greatest telecommunications companies in the world today, if not the biggest, is that they did a great job of stealing a lot of Nortel intellectual property [in Canada] that has found its way into Huawei equipment.”

Alliance Canada Hong Kong expressed concerns about Canada allowing Huawei to build the mobile fifth-generation—or 5G—network in Canada, stressing that “Canada is the only Five Eyes member⁸ to not restrict the use of Huawei equipment for the 5G network.”⁹ As well, Alliance Canada Hong Kong noted that Japan and several European countries have banned Huawei from their 5G network.¹⁰ Concerning whether Huawei represents a significant national security threat to Canada, [Mr. Fadden](#) stated that it “absolutely” is, and added:

I think [Huawei] acts as an agent of the Chinese party state. ... They have clearly indicated that acquiring information, intellectual property and intelligence from western countries is part and parcel of their basic approach to governance. Huawei will give them the opportunity of using any number of entry points into [Canada’s] communication system, both the old-fashioned one and the digital one. ... Huawei, beyond a shadow of a doubt, operates as an agent of the Chinese party state. ... There’s a significant risk for [Canada] in allowing them to operate.

Mr. Fadden also believed that, by—so-far—refusing to ban Huawei, Canada has “significantly lessened” its credibility with its Five Eyes partners and NATO allies. While indicating that it is unlikely that any of the Five Eyes countries “will ever cut us off from operational intelligence that constitutes a threat to Canada,” Mr. Fadden warned that, “if we continue along this path, broader cutbacks are a real possibility.”

Since the Committee’s final witnesses during the study appeared on 30 March 2022, the Government of Canada has [announced](#) on 19 May 2022 that it will ban Huawei from Canada’s 5G network.

8 The Five Eyes partners are Australia, Canada, New Zealand, the United Kingdom and the United States.

9 Alliance Canada Hong Kong, “Written Submission to the House of Commons Standing Committee on National Defence,” 28 March 2022.

10 Ibid.



A number of witnesses commented on cognitive warfare threats,¹¹ specifically disinformation campaigns, foreign influence and espionage. [Marcus Kolga](#), Senior Fellow at the Macdonald-Laurier Institute, stated:

The threat of foreign information warfare and influence operations—known more broadly as cognitive warfare—is persistent and growing. Canada [is] a significant target for Chinese, Russian and Iranian actors who seek to manipulate our media, elected officials, civil society, armed forces, ethnic communities and Canadian interests with information operations.

Mr. Kolga noted that Russia has been particularly active in using disinformation campaigns, and emphasized that “there is an entire disinformation ecosystem being created by the Russian government.” According to Mr. Kolga, Russia has become “an expert in creating completely fake news,” and Russian disinformation campaigns pose a threat to Canada, the United States and other democracies by exploiting civil unrest, environmental issues and other political issues to “divide our society by eroding our bonds within it.”

As an example, Mr. Kolga alluded to Russia’s exploitation of the COVID-19 pandemic to spread disinformation in Western societies designed to amplify fears and anxiety about the pandemic’s effects with the goals of destabilizing and dividing Western countries, undermining democracies, and eroding peoples’ trust in their governments, media and each other. Mr. Kolga also contended that Russia’s state media exploited recent COVID-19 protests in Canada by promoting both “extremist elements who were involved” in the protest and “extremist voices who [sought] the overthrow of our democratically elected government.”

¹¹ A recent study on cognitive warfare defines “cognitive warfare as the weaponization of public opinion, by an external entity, for the purpose of (1) influencing public and governmental policy and (2) destabilizing public institutions.” Cognitive warfare “goes a step further than just fighting to control the flow of information. Rather, it is the fight to control or alter the way people react to information. Cognitive warfare seeks to make enemies destroy themselves from the inside out.” See Alonso Bernal et al., [Cognitive Warfare: An Attack on Truth and Thought](#), North Atlantic Treaty Organization and Johns Hopkins University, 2020, p. 3. According to the Department of National Defence, “cognitive warfare seeks to change not only what people think, but also how they act. Attacks against the cognitive domain involve the integration of cyber, disinformation/misinformation, psychological, and social-engineering capabilities. ... Cognitive warfare positions the mind as a battle space and contested domain. Its objective is to sow dissonance, instigate conflicting narratives, polarize opinion, and radicalize groups. Cognitive warfare can motivate people to act in ways that can disrupt or fragment an otherwise cohesive society. Ensuing disorder can influence decision-making, change ideologies, and generate distrust among Allies.” See Department of National Defence, [“The Invisible Threat: Tools for Countering Cognitive Warfare—Fall 2021 NATO Innovation Challenge,”](#) 2021.

As well, Mr. Kolga mentioned that Russia's disinformation campaigns are targeting Western militaries, underscoring that CAF personnel deployed in Latvia and Ukraine have been targeted by Russian information warfare. [Vice-Admiral \(Retired\) Hawco](#) referred to Russia's use of cognitive warfare to spread doubt and undermine NATO's cohesion by threatening to use nuclear weapons if NATO intervenes in Ukraine, describing such actions as "an example ... of information confrontation" and of "grey-zone tactics."

With a focus on the growing use of hybrid warfare methods, [Major-General Wright](#) stressed that many state and non-state actors are investing in weapons systems and military technologies. In Major-General Wright's view, these actors are "increasingly pursuing their agendas using hybrid methods in the 'grey zone' that exists just below the threshold of armed conflict, including foreign influence, cyber and espionage operations."

Other Threats

Some witnesses mentioned the threats posed by weak governance in fragile states, violent extremism, terrorism and instability in several regions of the world. [Major-General Wright](#) explained that "there is a mutually reinforcing relationship between weak governance in fragile states, violent extremism and irregular migration flows, and the resultant situations are increasingly aggravated by the impacts of climate change," with the result that "instability [will be exacerbated] in many regions of the world over the coming years."

[Mr. Angell](#) also discussed terrorism, suggesting that it remains a transnational threat in many regions of the world. According to Mr. Angell, Canada and other NATO countries have been "working to fight terrorism," have been "actively engaged in the fight against [the Islamic State of Iraq and Syria, or ISIS]" for several years, and have "developed an action plan to counter international terrorism."

[Dr. Perry](#) and [Dr. Christian Leuprecht](#), Professor at the Royal Military College and Queen's University, highlighted the security situation in Canada, including in relation to the impacts of the current and future pandemics, climate change and extreme-weather events, natural disasters and climate-induced humanitarian crises. They expressed concerns about the dramatic increase, in recent years, in the CAF's domestic deployments to provide humanitarian assistance and help with disaster relief operations as a result of a rise in climate-induced emergencies, such as floods and forest fires.



Other witnesses focused more specifically on the security situation in the Arctic.

[Mr. Kolga](#) spoke about the militarization of the Arctic and Russia's investments in its military capabilities in the region. In mentioning "a growing threat in that region," Mr. Kolga highlighted Russia's construction of new bases—including offensive bases for long-range bombers—and its refurbishment of older facilities, as well as the country's deployment of various sophisticated weapon systems in the Arctic, including "high-speed ... nuclear-armed torpedoes that are designed to irradiate our Arctic coastline."

[Dr. Hampson](#) referred to China as a growing military threat in the Arctic, underscoring that "[t]he threat up there is growing from the Chinese who are building heavy icebreakers equipped with weapons" and "who see the Arctic as not just a place to exploit natural resources but of transit and military competition."

In providing a different perspective, [Vice-Admiral \(Retired\) Hawco](#) said that neither Russia nor China is an immediate threat to Canada in the Arctic, and asserted that there is no "imminent risk of sovereignty issues in the north." While acknowledging that there are "normal ... incursions" of Russian military aircraft into Canada's and the United States' Air Defence Identification Zones in the North, "which [the North American Aerospace Defense Command, or NORAD, meets] on a very routine basis," Vice-Admiral (Retired) Hawco sees no direct military threat in the North, but rather—in the coming years—growing competition among countries for the Arctic's natural resources. Vice-Admiral (Retired) Hawco does not expect this competition to pose "a direct challenge to Canada's economic exclusion zone and Arctic sovereignty claims," but noted that it "does have implications for our United Nations Convention on the Law of the Sea application" to the Arctic Ocean seabed. Moreover, Vice-Admiral (Retired) Hawco emphasized that the Arctic is predicted to have about 25% of the world's resources, and mentioned that Russia, China and other countries have expressed interest in exploiting those resources.

CANADA, THE NORTH ATLANTIC TREATY ORGANIZATION AND THE WAR IN UKRAINE

Witnesses spoke to the Committee about Russia's aggression against Ukraine, asserting that this aggression has been of concern to Canada and its NATO allies for many years. In particular, they focused their comments on the war in Ukraine and international condemnation of Russia, Canada's contributions to NATO, Operation REASSURANCE, and Canada's support for Ukraine.

Witnesses condemned Russia for its recent full-scale invasion of Ukraine, which started in February 2022 and has resulted in thousands of innocent civilians and others being killed and cities being destroyed. For them, this unprovoked, unwarranted and unjustified invasion has involved a range of atrocities, war crimes and crimes against humanity committed by Russian forces in Ukraine.

Witnesses also underscored that Canada, NATO and other international partners have been vocal and united in their support for Ukraine and in their condemnation of Russia's aggression. They noted that, in supporting Ukraine in its resistance against Russian aggression, countries are supplying weapons and military equipment, providing financial and humanitarian aid, and imposing sanctions against Russia. As well, they highlighted that Canada and other NATO countries have also taken a number of actions designed to strengthen the alliance's collective security and to increase defence and deterrence measures against Russia. In particular, in mentioning that NATO will not tolerate any Russian acts of aggression against the territory of any of its 30 countries, they drew attention to such measures as increasing and strengthening NATO's air, land and sea forces along the alliance's Eastern flank in Europe, and mobilizing NATO's Rapid Response Force for the first time in history.

[Andrew Rasiulis](#), Fellow at the Canadian Global Affairs Institute, observed that the "immediate threat faced by Canada and consequently directly relevant to the Canadian Armed Forces is the crisis between Ukraine and Russia," with the war's "potential spillover effect into nearby NATO countries" serving as a "clear and present danger" for Canada and its NATO allies. In [Vice-Admiral \(Retired\) Hawco's](#) opinion, Russia is the immediate threat and Canada must stand united with its NATO allies—in a strong and firm manner—in responding and containing this threat to European security. Vice-Admiral (Retired) Hawco characterized European security as "a national interest issue for Canada."

[Vice-Admiral Scott Bishop](#), Military Representative of Canada to NATO, stated that, "regardless of the outcome in Ukraine ... Russia has demonstrated that it is an



unpredictable and irresponsible actor on the international stage that's willing to take extraordinary and irresponsible risks and violate international law," which is a reality that Canada and NATO cannot ignore.

The War in Ukraine and the Condemnation of Russia

When the Committee began the study in January 2022, Russia had not yet invaded Ukraine and the international community was primarily concerned about Russia's military buildup along its border with Ukraine. Russia's military buildup at the shared border had been growing in size almost daily since fall 2021, and tensions between NATO and Russia were rising because the threat of a war between Russia and Ukraine seemed increasingly probable. In the days preceding the invasion, the Committee held several meetings on the situation in Ukraine, and on what Canada and NATO were doing—and could do—to assist Ukraine further as the prospect of another European war became more and more likely.

During those meetings, witnesses emphasized how Russian aggression towards Ukraine has been ongoing for several years. [Ihor Michalchyshyn](#), Executive Director and Chief Executive Officer of the Ukrainian Canadian Congress, mentioned Russia's illegal annexation of Crimea in 2014 and its support for pro-Russian separatist forces in the Ukrainian oblasts of Donetsk and Luhansk. Mr. Michalchyshyn noted that—in Eastern Ukraine—"over 13,000 people have been killed and 1.5 million have been internally displaced within Ukraine" since 2014.

Many witnesses also stressed the need for Canada to support Ukraine by providing weapons, and by imposing new sanctions against Russia. [Mr. Michalchyshyn](#) urged Canada to start providing lethal military equipment to Ukraine, and to impose additional and stronger sanctions against Russia. Most also thought that Russia was posturing and putting pressure on Ukraine by deploying military forces along its border. Few witnesses thought that Russia would launch a full-scale invasion of Ukraine.

The situation changed drastically on 24 February 2022, when Russia invaded Ukraine. As witnesses pointed out, Canada, its NATO allies and countries around the world immediately and vigorously condemned Russia's unprovoked and unjustified act of aggression against Ukraine, with Canada and its NATO allies imposing strong sanctions against Russia and providing unprecedented financial, military and humanitarian aid to Ukraine. Since February 2022, Canada has imposed a number of [sanctions](#) against hundreds of Russian individuals and entities, and has supplied Ukraine with lethal and non-lethal military equipment valued at tens of millions of dollars. The [Government of Canada](#) has reported that, as of 8 May 2022, Canada had donated more than

\$131 million in military equipment to Ukraine since February 2022, and more military aid is expected in the coming months with—on 7 April 2022—the Government of Canada [announcing](#) plans to provide an additional \$500 million in military aid in 2022–2023. Since then, the [Government](#) announced an additional \$50 million in military assistance on [8 May 2022](#) and another \$98 million on [24 May 2022](#).

Witnesses who appeared after Russia had invaded Ukraine expressed support for Ukraine, and urged Canada and its NATO allies to continue to condemn Russia and assist Ukraine. [Major-General Paul Prévost](#), Director of Staff for the Department of National Defence’s Strategic Joint Staff, and [Heidi Kutz](#), Senior Arctic Official and Director General of Arctic, Eurasian, and European Affairs at Global Affairs Canada, and [Kevin Hamilton](#), Director General of International Security Policy at Global Affairs Canada, asserted that Canada and NATO will continue both to be strong and united against Russia, and to support Ukraine. In agreeing, [Mr. Angell](#) observed that:

Alliance unity and adaptability have both been evident in response to Russia's violation of the sovereignty and territorial integrity of Ukraine. ... NATO has demonstrated extraordinary unity in responding to the present crisis, offering Russia a credible diplomatic track to avert the crisis and championing unprecedented sanctions once that diplomatic option was spurned. In addition, NATO pre-emptively implemented enhanced vigilance measures and activated its advanced planning mechanisms to shore up its deterrence posture while individual allies are providing unprecedented support to Ukraine. Throughout this crisis, the alliance has remained united and faithful to its values.

Witnesses explained that the war in Ukraine has escalated tensions in Eastern and Central Europe, and has the potential to destabilize security in the region further. They noted that millions of Ukrainian refugees have travelled to neighbouring states, including Poland and Hungary, and that NATO countries in the Baltic and Balkan regions have called for reinforcements to protect their territorial integrity from Russian expansion. In their view, as NATO’s response continues to evolve, the Alliance has emphasized the importance of demonstrating solidarity and the transatlantic bond.

According to [Dr. Maria Popova](#), Professor at McGill University, “the reality that Europe and North America are faced with right now after this Russian aggression is that a new iron curtain will be descending in Europe.” Dr. Popova stated that, after this war between Russia and Ukraine, “Russia's neighbours and any states that were part of historic Russia will not feel secure from Russian attack,” and non-NATO member states in the region do not have the collective structures needed to deal with a hostile Russia and “will have to figure out how to avoid being sucked into Russia's sphere of influence or worse.” In Dr. Popova’s opinion,



[w]hat Putin has demonstrated with this invasion is that he is done with pretending to co-operate in any way with the west. He is now on an expansionist mission. He will try to get as much territory as he can, and he is prepared for another confrontation with the west.

Canada's Contribution to the North Atlantic Treaty Organization

Witnesses observed that today—perhaps more so than ever before—NATO's relevance as a military alliance in an increasingly volatile and dangerous world has been proven, and Canada remains a strong NATO ally. They noted that NATO is a defensive alliance founded on the principles of democracy, individual liberty and rule of law, and that NATO has been a key pillar of European security for more than 70 years. They described Canada as a reliable and strong member of NATO that continues to be committed to the alliance and to the collective defence of its 30 countries. For them, NATO matters to Canada, and Canada matters to NATO.

According [Mr. Angell](#), NATO's task is "to guarantee the security of the Euro-Atlantic area and of the nearly one billion citizens of the now 30 allied countries." [Mr. Angell](#) underscored that—as a founding member—Canada was an "architect of NATO" and "continue[s] to play a leadership role within the alliance," stressing that NATO has "remained a cornerstone of our security for seven decades."

In commenting that Canada is a serious NATO ally in the current context, [Vice-Admiral \(Retired\) Hawco](#) drew attention to the contributions that Canada makes to NATO through deploying army units, ships and aircraft, and associated personnel, on NATO operations. In Vice-Admiral (Retired) Hawco's view, Canada and the CAF are well regarded within NATO, and allied countries see Canada as being a major contributor to the alliance. Vice-Admiral (Retired) Hawco emphasized that "[w]e have this view of ourselves as being a small country, but we have strategic mobility" and—compared to small NATO countries like "Croatia, Lithuania, Belgium, the Netherlands or Norway"—"we're an enormous military with all the capabilities and capacities," including jet fighter aircraft and a submarine force. In Vice-Admiral (Retired) Hawco's opinion, Canada's leadership of one of the four NATO multinational battalion-sized battlegroups in Eastern Europe—the enhanced Forward Presence (eFP) battlegroup in Latvia—is a clear demonstration of Canada's "reputation" within NATO.¹²

12 The four battlegroups are located in Estonia, Latvia, Lithuania and Poland.

In highlighting Canada's leadership role within NATO, [Mr. Angell](#) noted that Canada—one of NATO's founders—has been in a position of leadership from the outset: "It's a responsibility we take very seriously." As well, Mr. Angell stated:

Within the alliance, we're an extremely creative member. We have extraordinarily capable armed forces and we are present to do heavy lifting. Our role in Latvia and in Iraq are examples of that. ... We're also leaders in cutting-edge issues, and the work we're doing on climate and security is an example of that. We're leaders on values issues, and the work ... in terms of championing women, peace and security is an example of that.

[Mr. Angell](#) and [Vice-Admiral Bishop](#) contended that NATO remains more united now than ever before, and is committed to standing up to Russia and condemning its invasion of Ukraine. In suggesting that NATO's strength relies on the unity of its allies, all of whom—under Article 5 of the *North Atlantic Treaty*—view an armed attack against one NATO country as an attack against all NATO countries, they asserted that Canada and its NATO allies are united in their support for Ukraine, and are ready to defend NATO territory against Russian aggression. [Vice-Admiral Bishop](#) commented that, "in the face of this blatant unprovoked invasion of Ukraine by Russia, I don't think I've ever seen the 30 nations in NATO more united than they are right now," and added that:

NATO has been preparing since 2014 and Russia's annexation of Crimea and its first invasion of Ukraine. We've been very concerned with the potential for Russian aggression towards NATO. There's been a lot of work done ... in terms of developing plans to be able to respond to Russian aggression. ... These plans were activated ... with the approval of the North Atlantic Council [following Russia's invasion of Ukraine in February 2022]. That has enabled [NATO] to significantly reinforce the nations that are on the Eastern flank. ... A number of nations, including Canada, have taken measures to reinforce the existing forces that they maintain in those areas.

As well, [Mr. Angell](#) and [Vice-Admiral Bishop](#) identified some of the measures taken since February 2022 to strengthen NATO's Eastern flank, including the movement of additional troops and equipment to NATO's Northeastern flank to reinforce the existing battlegroups in the Baltics region, and the creation of new battlegroups in the Southeastern part of NATO's flank, including in Romania, Bulgaria, Slovakia and Hungary.

[Mr. Angell](#) mentioned that "NATO's strength derives from its ability to adapt in a constantly changing geostrategic environment," and described NATO's "far-reaching reform process, NATO 2030, to ensure that it remains fit for purpose." According to Mr. Angell, the process will result in the adoption of a "new capstone strategic concept" that will "chart a path forward for NATO for the next decade or so." In highlighting the new NATO Strategic Concept, which is expected to be released in June 2022, and the



constant need for NATO to adapt to changes in the global security environment, [Vice-Admiral Bishop](#) stated:

[The war in Ukraine] is going to have a significant impact on the development of that strategic concept. I think this is already generating a lot of discussion in NATO about how we need to examine our defence and deterrence posture, particularly along the Eastern flank. I think there is going to be a call from many of our allies, particularly those who are in that Eastern part of the alliance, for NATO to take a serious look at a significant increase in the capabilities that NATO maintains along the borders with Russia and along NATO's Eastern flank.

In referencing NATO's climate change–related activities as an example of the alliance's adaptation to rapid changes in the global security environment, [Mr. Angell](#) emphasized that NATO's "allies recognize[d] the security implications of climate change as a threat amplifier and the importance of reducing military emissions, equipment and activities." Mr. Angell also provided an example of Canada's leadership within NATO: at the 2021 NATO Summit, Canada announced that the country's strengthened commitment to NATO would include hosting a NATO Centre of Excellence on Climate and Security to carry out NATO's climate security priorities, facilitate the exchange of expertise, build capacity and advance efforts to reduce the climate impacts of military activities. In [Mr. Angell's](#) view, this initiative will "significantly advance" NATO's work in the "critical area" of climate change and security.

Canada's Operation REASSURANCE

Some witnesses made comments about Operation REASSURANCE. Recently, the Government of Canada [announced](#) its decision to strengthen the CAF's support to NATO's defence and deterrence measures in Central and Eastern Europe under Operation REASSURANCE. Consequently, Canada will continue to contribute financial, human and material resources to NATO in the coming years.

Launched in 2014, [Operation REASSURANCE](#) is currently Canada's largest international military operation; approximately 1,400 CAF personnel are deployed. Under the operation, Canada has been: leading NATO's eFP battlegroup in Latvia; deploying frigates into a Standing NATO Maritime Group; and supporting NATO with enhanced air policing in Romania on a rotational, non-permanent basis through the deployment of CF-18 Hornet jet fighters.

On 22 February 2022, the Government of Canada [announced](#) new commitments in relation to Operation REASSURANCE, including: the deployment of 460 CAF personnel to join the approximately 800 already deployed in Europe in support of NATO; a battery of

M777 artillery guns with forward observers and an electronic warfare troop to bolster the eFP battlegroup in Latvia; a second frigate to participate in NATO's standing naval forces; and the re-tasking of a CP-140 Aurora long-range patrol aircraft, which will now operate in the Euro-Atlantic area under NATO command and control. As well, if required by NATO, approximately 3,400 CAF personnel across all branches—army, navy, air force and special forces—are authorized to deploy to the NATO Rapid Response Force.

As well, on 28 February 2022, the Government of Canada [announced](#) that the CAF will deploy two CC-130J Hercules transport aircraft to Europe to help NATO allies move personnel and equipment, and to supply military aid to Ukraine. On 8 March 2022, a year ahead of schedule, the Government [announced](#) a renewed, multi-year commitment to Operation REASSURANCE because of the changing security situation in Europe. More recently, on 14 April 2022, [DND](#) announced that more than 100 CAF personnel were deploying to Poland under Operation REASSURANCE to assist with efforts to support and care for Ukrainian refugees fleeing the war in Ukraine. Furthermore, [Major-General Prévost](#) said that Canada agreed to deploy six CF-18 jet fighters to Romania in fall 2022 to participate in NATO air policing missions, although those air assets “could be brought in earlier if NATO requires it.”

In commenting on Operation REASSURANCE, [Major-General Prévost](#) compared Canada's role in NATO's operations in Eastern and Central Europe under the operation to the contributions of other alliance countries, describing Canada's as “at par, for sure; it's even more than at par.” Major-General Prévost added:

We are the lead in the Latvia battlegroup right now, one of [four] NATO battlegroups along the Eastern front. ... Canada is the lead of many nations in [that battlegroup]. Actually, the battlegroup we command in Riga, Latvia, is the most multinational of all the battlegroups deployed along the Eastern front.

[Vice-Admiral Bishop](#) stressed Canada's contributions to NATO, especially at the operational level, indicating that “one of our major strengths as a nation is the contribution we make to the alliance.” According to Vice-Admiral Bishop,

[w]hen we come to the table and we provide capabilities to NATO, we provide excellent, high-readiness capabilities that are fully mission capable. That has always been our mantra, and our allies recognize that.

In emphasizing Canada's contributions to NATO under Operation REASSURANCE, Vice-Admiral Bishop underscored both that “we have excellent capabilities in the battlegroup in Latvia” and that Canada's “leadership role in Latvia” is well-recognized within NATO. Moreover, Vice-Admiral Bishop pointed out that Canada has “excelled in



the air policing mission,” which is a contribution that NATO’s allies also value. Vice-Admiral Bishop noted that:

Canada has been a regular contributor of fighter aircraft in support of NATO’s air policing missions. Along the Eastern flank, Canada has been a regular contributor to air policing in Romania. Our efforts there have been extremely well appreciated by all of our allied partners. This is an extremely important mission for NATO and in particular for nations along the Eastern flank. ... [W]e get a lot of credit from our allies for the great job that our men and women are doing in those missions.

Mr. Angell also highlighted NATO countries’ appreciation for Canada’s naval contributions under Operation REASSURANCE, asserting that “we have been leading and contributing to standing naval maritime groups very effectively.” In agreeing, Vice-Admiral Bishop commented that:

[w]e are a very consistent contributor of naval forces to NATO’s standing naval forces. In fact, we are one of the few countries that consistently contribute warships to those standing naval forces.

Major-General Prévost asserted that—as required—CAF personnel deployed on Operation REASSURANCE are ready to fight, stating that “[t]he Canadian Forces have the authorities and the rules of engagement they need right now to operate in the context in which we’re operating”; however, “if the situation changes, we will ensure that the Canadian Armed Forces members have the rules of engagement they require.” That said, Major-General Prévost also observed that, “at any time, any member of the Canadian Forces, any unit of the Canadian Forces, any allies, have always had the right to self-defence,” with the result that CAF personnel could defend themselves if Russia were to attack CAF forces currently deployed in Europe under Operation REASSURANCE.

Witnesses thought that a war between Russia and NATO is highly unlikely, and that Russia will not dare to attack a NATO country because of Article 5 of the *North Atlantic Treaty*. They stressed that the 30 NATO countries have demonstrated their unity and commitment to Article 5 since the beginning of the crisis in Ukraine, and that NATO includes some of the world’s largest military powers; these include the United States, the United Kingdom and France, all of which are nuclear states.

In Vice-Admiral (Retired) Hawco’s opinion, “it is hard to imagine, except in some sort of in extremis situation or miscalculation,” that Russia would attack a NATO country; however, if such an attack were to occur and if “people were killed in that situation, everyone would respond. Everybody would, without a shadow of a doubt” because of Article 5. Vice-Admiral (Retired) Hawco predicted that such a situation “only has one or two endings, and neither of them [is] really good for Mr. Putin ... or for ... the Russian

Federation.” In agreeing, [Major-General Prévost](#) contended that the “real risk” of a Russian attack on NATO would be on “Putin himself”—not on NATO—and noted that NATO is united, prepared and can “bring a lot of capabilities together.” As well, [Major-General Prévost](#) stated that—short of the highly unlikely prospect of a Russian attack on a NATO country—the biggest threat that CAF personnel deployed in Europe under Operation REASSURANCE currently face is Russian disinformation campaigns and information warfare.

While supporting the CAF’s efforts in Europe under Operation REASSURANCE, some witnesses advocated reconsideration of a permanent military presence in Europe as a deterrent against the threat of Russia. In noting that Canada’s presence in Latvia under Operation REASSURANCE is temporary, they suggested that Canada should return to the approach taken during the Cold War, when the CAF had a permanent army and air force presence in Germany. [Mr. Kolga](#) observed:

We need deterrents in NATO and we need to ensure that we add resources to our mission in Latvia, perhaps working within NATO to call for a permanent mission in the Baltic states to deter Vladimir Putin. That's something we should be looking at, because it is that sort of power, the deterrents, that will stop Vladimir Putin from acting the way he is right now in Ukraine.

(See Recommendation 3)

Canada’s Support for Ukraine

Several witnesses mentioned Canada’s training of Ukrainian military personnel under [Operation UNIFIER](#), which was launched in 2015 with the goal of helping Ukrainian security forces personnel to improve their capability and capacity. In January 2022, the Government of Canada [extended](#) Operation UNIFIER until the end of March 2025. In April 2022, DND [reported](#) that, since 2015, CAF personnel deployed on Operation UNIFIER had provided training to almost 33,350 Ukrainian security forces personnel through 726 courses. Operation UNIFIER is temporarily on hold because of Russia’s invasion of Ukraine. [DND](#) has stated that “all CAF personnel currently deployed on [Operation] UNIFIER have been temporarily relocated to Poland until conditions permit a resumption of training.”

[Major General Prévost](#) said that the approximately 240 CAF personnel deployed under Operation UNIFIER were relocated elsewhere in Europe prior to Russia’s most recent invasion of Ukraine because of the “increasingly volatile situation in Ukraine.” According to Major-General Prévost, the CAF “will remain poised to go back to Ukraine to continue [its] training once the situation allows.”



Witnesses also described the military aid that Canada has been providing to Ukraine. When appearing before the Committee on 23 March 2022, [Minister of National Defence Anita Anand](#) emphasized that—since February 2022—the Government of Canada had announced lethal and non-lethal military aid to Ukraine valued at more than \$100 million, including anti-tank weapons, rocket launchers, hand grenades, pistols, sniper rifles, ammunition and cameras for use on drones. In Minister Anand’s view, “[w]e are doing whatever we can to assist Ukrainian soldiers at this time, including exploring the possibility of procurements from third party suppliers.” [Major-General Prévost](#) indicated that most of these equipment donations are being sourced from the CAF’s “in-service inventory,” although “some equipment ... had been declared surplus.” As well, Major-General Prévost highlighted that those donations of military equipment were in addition to the \$23 million in military aid that Canada had already provided to Ukraine since 2015, and—in relation to information sharing—said the Government has announced that high-resolution satellite imagery valued at \$1 million will be provided to Ukraine.

Since the Committee’s final witnesses during the study appeared on 30 March 2022, the Government of Canada has mentioned additional military aid to Ukraine. For example, on 7 April 2022, the [federal budget](#) announced an allocation of \$500 million in additional military aid to Ukraine in 2022–2023 and, on 22 April 2022, [DND](#) announced both that Canada had delivered additional Carl Gustaf anti-armour ammunition, as well as a number of M777 155mm towed howitzers and associated ammunition, to Ukraine and that the country is in the process of finalizing contracts for some commercial-pattern armoured vehicles and for service contract concerning the maintenance and repair of the specialized drone cameras that Canada has already provided. On 26 April 2022, the Government of Canada [announced](#) that Canada had finalized contracts for eight commercial-pattern armoured vehicles, and a service contract for the maintenance and repair of specialized drone cameras. According to the [Government of Canada](#), since February 2022 and as of 8 May 2022, Canada had delivered military equipment to Ukraine valued at more than \$131 million. Since then, the Government of Canada announced on [8 May 2022](#) an additional commitment of \$50 million in military aid to Ukraine, which includes high-resolution satellite imagery and drone cameras as well as small arms and artillery ammunition. The Government also announced an additional commitment of \$98 million on [24 May 2022](#), which includes a donation of 20,000 artillery rounds of 155 mm ammunition for the M777 howitzers.

Notwithstanding Canada’s contributions to Ukraine to date, a number of witnesses identified additional military equipment that Canada could provide, including certain advanced and specialized high-tech military technologies. [Mr. Jolicoeur](#) noted that Canada could supply Ukraine with drones or surveillance systems to “help the Ukrainian

armed forces build up their military capacity,” while [Dr. Hampson](#) drew attention to Ukraine’s need for anti-tank weapons and surface-to-air missiles.

Several witnesses made comments about Canada’s sanctions against Russia. [Ms. Kutz](#) underscored that Canada is working “very closely” with the United States, the United Kingdom, Australia and the European Union in order to align Canada’s sanctions with those of other countries “for maximum ... immediate impact on Russia.” In noting existing sanctions on Russian individuals, entities and financial institutions, and the Government of Canada’s consideration of additional sanctions, Ms. Kutz stated that “[t]he reason it’s important to move in lockstep [with other countries] is simply critical mass.”

In Ms. Kutz’s opinion, the international sanctions against Russia have an impact and Canada’s mission in Moscow—which is closely monitoring the situation in Russia to help understand the sanctions’ impacts on Russian society—has reported that the sanctions “are causing strain and pressure on the Russian economy.” Ms. Kutz provided example of those impacts, highlighting that the decision to remove Russia from the Society for Worldwide Interbank Financial Telecommunications (SWIFT) and the SWIFT global interbank payments systems “is having a significant impact on Russian banks, their financial system and their ability to transit.”

In agreeing with Ms. Kutz’s assertion that the sanctions are having an impact, [Dr. Popova](#) emphasized that the “Russian ruble is crashing” and Russian “banks are under threat.” In Dr. Popova’s view, sanctions will be the most effective if they give rise to protests in Russia and if “Russian society mobilizes to stop this war” and to replace President Putin, although this outcome seems unlikely. While acknowledging that there are protests in Russia against the war with Ukraine, Dr. Popova described the probability that the protests will bring about change as “limited” because President Putin has established a very repressive authoritarian regime that is making it “very hard to protest.”

Witnesses generally agreed that additional sanctions against Russia would demonstrate support for Ukraine. [Mr. Hamilton](#) indicated that additional sanctions might prompt President Putin “to have a second thought about what he’s trying to do militarily.”

(See Recommendation 4)



CANADA AND CONTINENTAL DEFENCE

The Committee's witnesses made comments about the ways in which recent changes in the global security environment and the growing tensions with Russia could affect Canada from a continental defence perspective. In particular, they mentioned NORAD and its modernization, Arctic security and sovereignty, and military aid to the civil power.

Notwithstanding the current investments being made to strengthen Canada's domestic and continental defences, several witnesses asserted that major investments will continue to be needed in the coming years to address the various threats and challenges that Canada faces in protecting its territory from new and emerging threats, cooperating with the United States to defend the North American continent, ensuring Canada's sovereignty in the Arctic, and responding to a growing number of climate-related emergencies.

North American Aerospace Defense Command and Its Modernization

Recognizing Canada's contributions of financial resources, personnel, jet fighters and other air assets, and military infrastructure, a number of witnesses focused on the importance of [NORAD](#) to the defence of North America and the urgent need to modernize it, consistent with the commitment in "Strong, Secure, Engaged" to work with the United States to modernize NORAD to meet existing challenges and evolving threats to North America.¹³ On 14 August 2021, the Canadian and U.S. governments released a [joint statement on NORAD modernization](#), noting that "NORAD must be able to detect and identify ... threats earlier and respond to them faster and more decisively, including aerospace threats transiting our northern approaches." As well, the joint statement outlined priority areas for new investments.

[Jonathan Quinn](#), Director General with responsibility for Continental Defence Policy within the Department of National Defence, highlighted that Canada and the United States formally established NORAD in 1958 as a binational military command, and asserted that NORAD has been successfully defending North America for more than 60 years. According to Mr. Quinn, "NORAD's mandate of aerospace warning, aerospace control and maritime warning is more important than ever to meet current and evolving threats to North America."

13 See: Martin Auger, *North American Aerospace Defense Command*, Library of Parliament backgrounder prepared for the House of Commons Standing Committee on National Defence, 14 January 2022, pp. 1–9.

Concerning the expectation that Canada will continue to make investments in NORAD in the coming years as modernization occurs, [Dr. Anessa Kimball](#)—Associate Professor of Political Science at the Université Laval’s Centre for International Security—argued that, “if Canada wants to remain a major partner in NORAD, it must make more investments.” As Dr. Andrea Charron, Director of the University of Manitoba’s Centre for Defence and Security Studies, explained:

NORAD modernization will not be cheap. ... What is clear is that the status quo cannot continue. It is no longer a case of Canada just being a laggard and that contributing “just enough” will satisfy allies or that North America will never be a target of attack. North America is at considerable risk. ... And a North America at risk is a liability for NATO and partners unless we contribute significantly to continental defence.¹⁴

[Major-General Prévost](#) observed that “discussions are well underway” between Canada and the United States on NORAD modernization, with the two countries “working hard on this right now.”

In outlining priority areas for investments, [Vice-Admiral Auchterlonie](#) identified improvements to situational awareness through replacement of the North Warning System, modernization of command-and-control systems, upgrades to—and modernization of—surveillance and response capabilities, collaboration in research, development and innovation, and enhancements to NORAD’s infrastructure, especially in the Arctic and northern regions.

[Dr. Fergusson](#) stressed that NORAD modernization will be an ambitious and costly endeavour for both Canada and the United States, but mentioned that modernization is not just about “sensors, shooters or interceptors, but about command-and-control arrangements and infrastructure ... to ensure that we can actually detect, deter, defeat and defend against potential and future threat.” Similarly, in Dr. Charron’s opinion,

NORAD modernization ... is not only about acquiring capabilities and new kit but reconsidering command and control architecture, operational readiness, closing seams between combatant commands, protecting critical infrastructure and ensuring logistics can be sustained, all of which will require [NORAD] to work more concertedly with other [American and Canadian] government agencies, [foreign] allies and new partners.¹⁵

14 Andrea Charron, “Written Submission to the House of Commons Standing Committee on National Defence,” 21 March 2022.

15 Andrea Charron, “Written Submission to the House of Commons Standing Committee on National Defence,” 21 March 2022.



A number of witnesses underscored the urgent need to replace the North Warning System. [Dr. Fergusson](#) explained that the radar network was not designed to monitor 21st century weapons systems and is now “obsolete.” In raising concerns about China’s and Russia’s rapid development and deployment of long-range cruise missiles and hypersonic weapons, and the threats that those weapons systems pose to North America, Dr. Fergusson stated that “North American defence faces significant and severe capability gaps” because of the North Warning Systems’ inability to monitor those new weapons systems. Dr. Fergusson elaborated on the gaps, noting that long-range cruise missiles are a problem because the North Warning System “can pick them up very briefly as they sort of fly over, but there’s no capacity to really detect them, track them and vector interceptors to them.” According to Dr. Fergusson, hypersonic weapons pose another “very distinct challenge” because “the North Warning System is not calibrated to, nor does it have the power to be able to look up and find these weapons.”

[Dr. Fergusson](#) advocated replacement of the North Warning System with a system of systems, arguing that there is a need to think beyond a radar network; a new system should include more advanced radars and sensor systems, as well as a range of other capabilities, such as drones, satellites and surveillance aircraft. In describing North America as a “360° continent that needs to be defended,” Dr. Fergusson stated that:

[t]he most important and pressing requirement right now is sensor systems, and not simply in terms of replacing the ground-based North Warning System. The current preference is for over-the-horizon backscatter radars. Integrating both ground-based-replacements as well as air-based.

In Dr. Fergusson’s view, the “possible acquisition of [Airborne Early Warning and Control] systems, the use of possibly high-altitude tethered balloons and space-based systems” should be considered.

[Dr. Huebert](#) agreed with Dr. Fergusson concerning replacement of the North Warning System, but added two elements that should be acquired to deal with new threats: space-based assets to monitor and identify missile threats, “particularly given the speeds and the stealth capabilities of some of the Russian cruise missiles” and the advent of hypersonic weapons; and, in connection with NORAD’s maritime warning function, underwater detection systems to track activities under the surface of North America’s maritime domain. Dr. Huebert noted that Russia has a range of submarine capabilities that pose a direct threat to North America, including new underwater weapons systems and autonomous underwater vehicles; this threat is expected to grow in the future.

In [Lieutenant-General \(Retired\) Semianiw](#)'s opinion, there is an urgent need for underwater sensor systems, especially in the Arctic, because "[t]here are submarines that go through our north ... on a regular basis that we are not aware of. ... We really don't know what's going on under the water in Canada's North," so adding underwater sensor systems would be "a step in the right direction."

Plans are underway to keep the North Warning System operational until it is replaced, with—in January 2022—the Government of Canada [announcing](#) that an in-service support contract had been awarded to Nasittuq Corporation, an Inuit-owned company, for the operation and maintenance of the North Warning System for an initial period of seven years, followed by four two-year option periods. [Dr. Fergusson](#) described the awarding of this contract as a positive step and an example of the type of commercial opportunities that NORAD modernization can bring to Northern communities. According to Dr. Fergusson, "significant opportunities to partner with Inuit and Indigenous companies in the north and Arctic" are likely to arise in the coming year because of various initiatives: the extension of the Canadian Air Defence Identification Zone, which now includes the entire Arctic Island archipelago; the expected replacement of the North Warning System's ground-based radar network; and the potential construction and operation of new airfields and Forward Operating Locations in the North.

Some witnesses suggested that, as part of modernization efforts, NORAD's mission should be expanded beyond aerospace warning, aerospace control and maritime warning to address all environments—air, space, maritime, land and cyber—for all of North America. In their view, NORAD needs to include multi-domain capabilities to face new and emerging threats. [Mr. Colby](#) explained that, in its early years, NORAD's sole concern was the threat of nuclear attack by Soviet strategic bombers and missiles; however, today, the threat environment is much more complex and dynamic, and includes a wide range of new and sophisticated technologies. Mr. Colby particularly emphasized the need to protect North America from maritime threats, stating that "[t]here are Russian submarines with a wide variety of conventional as well as nuclear cruise missile capabilities floating around the Atlantic, and pretty soon, before we know it, there are going to be Chinese capabilities as well." In Mr. Colby's view, NORAD modernization should include investments in multi-domain capabilities.

[Lieutenant-General \(Retired\) Semianiw](#) agreed with Mr. Colby, and drew attention to potentially expanding NORAD's mandate to include maritime threats. In Lieutenant-General (Retired) Semianiw's opinion, maritime threats "should be managed by one organization," and "NORAD has many of the pieces and parts in place already, but clearly it needs a mandate to do that."



A number of witnesses mentioned Canada's lack of participation in ballistic missile defence (BMD) and recent debates about the issue; in February 2005, the Government of Canada announced that Canada would not join the United States in a BMD program. [Dr. Kimball](#) and [Lieutenant-General \(Retired\) Semianiw](#) asserted that Canada should reconsider the issue of the country's participation in the United States' BMD program. They maintained that Canada's current lack of participation is detrimental to continental defence, especially in light of today's rapidly changing global security environment.

In agreeing with Dr. Kimball and Lieutenant-General (Retired) Semianiw, [Dr. Fergusson](#) commented that Russia, China and North Korea would not differentiate between a missile strike on Canada and such a strike on the United States: Canada and the United States are generally regarded as "one big target." According to Dr. Fergusson,

[b]asically, this idea that somehow everyone separates Canada from the United States is a Canadian myth, for political purposes. We are one target area, and it's confirmed by our close relationship with the United States. ... Because ... Canadian cities are located close to the border and to American cities, issues about the accuracy and the guidance systems of potential threatening long-range [intercontinental ballistic missile] capabilities, and the fact that [Russia, China or North Korea] understand very clearly that we are economically integrated, they see this, as far as I'm concerned, as one target set.

(See Recommendation 5)

Arctic Security and Sovereignty

Some witnesses mentioned that an increase in military activities in the Arctic is putting pressure on Canada to strengthen the CAF's presence in the region. They noted recent investments in military infrastructure, the activities of the Canadian Rangers in the North, the construction of Arctic Offshore Patrol Ships, renewal of the icebreaker fleet, the expected acquisition of unmanned aircraft systems and various other surveillance capabilities, and—as noted earlier—replacement of the North Warning System.

Several witnesses spoke about the need to invest in Arctic security and sovereignty. In [Mr. Kolga's](#) view, Canada is "woefully unprepared" and needs "to be better prepared" to address Russian and Chinese activity in the Arctic. In commenting that Arctic security and sovereignty should be a major preoccupation for Canada, "particularly with climate change and the greater utility of the Northwest Passage," [Mr. Rasiulis](#) stated that Canada needs military capabilities in the Arctic to enforce its sovereignty in the region and its jurisdiction over the Northwest Passage, and drew particular attention to "naval and air, with some ground forces." According to [Mr. Robertson](#), Canada currently struggles to

exercise its sovereignty in the Arctic, and additional resources should be allocated for Arctic security and sovereignty.

While some witnesses considered Russia to be a military threat in the Arctic, others did not. [Dr. Stephen Saideman](#), Paterson Chair in International Affairs at Carleton University's Norman Paterson School of International Affairs, said:

I am an Arctic skeptic. If the Russians can't provide logistics for a conventional military campaign next door [in Ukraine], I can't see how they're a huge threat to the north. ... We must remember that most of the Russian investment is in protecting their Arctic rather than jumping across to our side of the Arctic. They're not really that capable of jumping across the Arctic and sustaining that for any length or period of time.

Dr. Saideman also commented on the cost of operating and fighting in the Arctic because of geography, extreme weather, great distance, and various other logistical factors and challenges: "It's just a very expensive place. ... As expensive as it is for us, it's also expensive for the Russians." That said, [Dr. Saideman](#) argued that Canada should invest in Arctic security and sovereignty through greater cooperation with Indigenous communities in the region, mentioning that "[o]ur best protection against northern threats is a better relationship and more investment in the people who live there."

A number of witnesses were concerned that tensions with Russia since its recent invasion of Ukraine might have consequences in the Arctic. [Ms. Kutz](#) underscored the extent to which Arctic Council member states remain committed to cooperation and an avoidance of conflict in Arctic. That said, Ms. Kutz admitted that the war in Ukraine is having an impact on the Arctic Council's activities, noting that seven of the Arctic Council's eight members—Canada, Denmark, Finland, Iceland, Norway, Sweden and the United States—have condemned Russia's unprovoked and unjustifiable actions in Ukraine; Russia is the eighth member of the Arctic Council.

In indicating that investments in Arctic security and sovereignty are important to DND and the CAF, [Mr. Quinn](#) stated that:

[t]here are certainly Canadian interests in the Arctic that fall well outside of the NORAD mandate. We certainly need to have domestic capabilities. We need the Canadian Armed Forces to be able to launch and sustain operations across the north across the full spectrum of operations, from safety and security, search and rescue, to protecting our sovereignty and Canadian interests in the context of an increasingly competitive geopolitical environment.



Several witnesses noted the need to enhance domain awareness in Canada’s Arctic, particularly in relation to the maritime domain. [Lieutenant-General \(Retired\) Semianiw](#) said:

We need to be able detect threats: air threats, maritime threats, land threats or a combination of some, or all multidomain threats. In this respect, the weakness that we have remains in the area of maritime domain awareness—what is going on above and under the waters of Canada's Arctic. Yes, it has improved, thanks to technology, but more needs to be done.

In Lieutenant-General (Retired) Semianiw’s opinion, Canada should both invest in underwater sensor systems to detect submarine activity in the Arctic, and acquire medium and large drones to patrol the Arctic skies, which “would go very far to increasing our ability to detect land threats across approximately 2.6 million square kilometres of Canada's North.” Lieutenant-General (Retired) Semianiw also urged Canada to invest in the acquisition of new ships and aircraft to respond to threats in the Arctic once they have been detected, and suggested that Canadian Coast Guard ships should be armed for that purpose.

Regarding the Royal Canadian Navy’s new Arctic and Offshore Patrol Ships, [Dr. Perry](#) commented that these ships will provide the CAF with greater capability in the Arctic, but also indicated that Canada should move forward on a range of other defence procurement projects, such as new icebreakers, submarines and surveillance systems for Arctic operations.

Some witnesses commented on the need for enhanced military infrastructure in the Arctic. [Dr. Kimball](#) emphasized that—when compared to Finland, Russia, Sweden, the United States and other northern countries—Canada’s security-related investments in military installations in the Arctic have been significantly lower. [Lieutenant-General \(Retired\) Semianiw](#) encouraged Canada to build new Forward Operating Location airfields in the Arctic to support jet fighters and other military aircraft operating in the region.¹⁶ According to [Lieutenant-General \(Retired\) Semianiw](#), Canada requires more of these airfields “to be able to cover the north effectively.”

To enhance the CAF’s Arctic presence, a number of witnesses encouraged Canada to strengthen relations with northern communities and with the region’s residents, with some highlighted the need for a physical presence in the Arctic to ensure security and sovereignty. In [Lieutenant-General \(Retired\) Semianiw](#)’s view, “[t]o be able to maintain and hold territory, someone has to be standing on it. It can't be held by a drone, by an

16 Canada currently operates four Forward Operating Location airfields in the North: in Yellowknife and Inuvik in the Northwest Territories; in Iqaluit in Nunavut; and in Goose Bay in Newfoundland and Labrador.

aircraft or by a ship. An individual has to stand on a piece of ground, and you have to move them off of that piece of ground to take control.”

Dr. Kimball described the current practice of using the Royal Canadian Air Force to fly CAF personnel, equipment and supplies from southern Canada to the Arctic to participate in exercises and conduct operations as costly, noting that “the more personnel we send to the Arctic, the more it will cost.” As a partial solution to the issue of high cost, Lieutenant-General (Retired) Semianiw proposed that Canada should make greater investments in the Canadian Rangers and consider establishing permanent CAF units in the Arctic.

Concerning the Canadian Rangers, Lieutenant-General (Retired) Semianiw noted that there are currently more than 5,000 Canadian Rangers living in more than 200 communities in Northern Canada; in being allocated across five Patrol Groups that do not fully cover Canada’s North, the Canadian Rangers conduct patrols across the north, report unusual activities or sightings, and perform sovereignty or national security duties.

In Lieutenant-General (Retired) Semianiw’s opinion, the Canadian Rangers program should be expanded and professionalized: expanded through recruiting to ensure sufficient patrols “to fully cover our north,” and professionalized through ensuring that the Canadian Rangers receive the same benefits, support, training and equipment as other CAF personnel. Lieutenant-General (Retired) Semianiw stated that expanding and professionalizing the Canadian Rangers would be “the most economical, quick and efficient way to establish an on-the-ground northern land surveillance system,” and added that:

[T]he Canadian Rangers do amazing work with what they are given, but the support they receive in terms of equipment, training and logistics needs to improve dramatically for the rangers to be prepared to detect modern land threats across Canada's north.

Regarding the establishment of permanent CAF units in the Arctic, Lieutenant-General (Retired) Semianiw proposed the creation of a permanent Primary Reserve Force “organization” in the North that would be “Indigenous-led, but ... [that would be] part of the Canadian Army”; the organization, which would involve a lower cost than having Regular Force units based in the region, would work with an expanded and professionalized Canadian Rangers force in Canada’s North. According to Lieutenant-General (Retired) Semianiw’s proposal, the battalion-type organization would comprise about 800 personnel: 200 in Whitehorse, 200 in Yellowknife and up to 400 in Iqaluit. Lieutenant-General (Retired) Semianiw acknowledged that the CAF has a small number



of CAF Reserve Force personnel with the Loyal Edmonton Regiment in the North, but characterized this number as “not enough.”

Witnesses agreed that whatever Canada does to increase its security and sovereignty in the Arctic will be costly. [Lieutenant-General \(Retired\) Semianiw](#) said that “it’s usually, as a minimum, about four times more expensive to build and maintain any infrastructure in the north than it is in the south.” [Dr. Kimball](#) and [Dr. Saideman](#) agreed, with the former stating that the cost of investing in Arctic security “is going to be quite large,” and the latter indicating that “[e]very investment that we put in the North is going to be very, very costly. Climate change is not going to make it cheaper. ... We’re going to need more assets up in the North” if more people transit through the region, including search and rescue assets.

[Lieutenant-General \(Retired\) Semianiw](#) advocated the development of a strategy to protect Canada’s North and to build capabilities in the region in accordance with a multi-year plan, noting that investments in Arctic security is “going to be extremely expensive. ... Therefore ... it’s something that has to be built over a number of years” and “built based on a foundation and on a plan.” [Dr. Kimball](#) added that investing in security in Canada’s North should be something that “all parties need to align themselves on and say that this is a priority because territorial defence matters.”

(See Recommendations 6, 7 and 8)

Domestic Operations and Military Aid to the Civil Power

A number of witnesses mentioned that civil authorities are increasingly seeking the CAF’s assistance in times of domestic emergencies, in some cases to augment provinces’ capabilities. [Operation LENTUS](#), which is the CAF’s response to domestic natural disasters, was activated 31 times between 2010 and 2020. While the CAF was deployed once in 2010, there were seven deployments in 2021, including to respond to wildfires in British Columbia, Manitoba and Ontario, and flooding in Yukon and British Columbia.¹⁷ Other analysis suggests that “over the past decade, Canada has become more reliant on the CAF to respond to domestic emergencies, which are growing in frequency,” especially climate-related emergencies.¹⁸

17 See Marie Dumont, Ariel Shapiro and Anne-Marie Therrien-Tremblay, [The Canadian Armed Forces Responding to Domestic Emergencies: Some Implications](#), HillNote, Library of Parliament, 13 December 2021.

18 See Christian Leuprecht and Peter Kasurak, [The Canadian Armed Forces and Humanitarian Assistance and Disaster Relief: Defining a Role](#), Centre for International Governance Innovation, 24 August 2020.

Concerning such domestic deployments, [Vice-Admiral Auchterlonie](#) observed that:

[w]hen issues arise that are beyond the control of particular municipalities or provinces, they would then ask the federal government for support and potentially the Canadian Armed Forces. This is done through a request for assistance from the province to the federal government. That is then coordinated at the federal level through the Minister of Public Safety.

In noting that the “Canadian Armed Forces should be considered a force of last resort in Canada,” Vice-Admiral Auchterlonie acknowledged that the “demonstrated effects of changing climate have also created greater demand for the CAF resources and support.”

Regarding the COVID-19 pandemic, [Vice-Admiral Auchterlonie](#) stated that the CAF has deployed personnel and assets to communities across Canada under [Operation LASER](#) and under [Operation VECTOR](#): the former to support long-term care facilities in Ontario and Quebec, as well as Indigenous communities and provincial governments across Canada,¹⁹ and the latter to distribute vaccine doses across Canada.

With the frequency of the CAF’s responses to domestic emergencies expected to continue to rise in future years as a result of climate change, [Major-General Wright](#) predicted that “at home, extreme weather-related events will become more severe and more frequent, including droughts, floods and fires, putting more pressure on federal resources, including the Canadian Armed Forces.”

In [Dr. Saideman](#)’s view, “the most important threat facing Canada and the CAF are climate change.” Dr. Saideman explained that:

[t]his fall, storms and floods isolated Vancouver and severed Canada's connection to the Pacific more effectively than a Russian or Chinese first strike. ... [Military] assistance to civil authorities [is] increasing in intensity and frequency. The pandemic itself, in which more Canadian civilians died than in any attack or war, was yet another emergency requiring much CAF effort, yet we continue to see domestic operations as an afterthought. It's always mentioned as a priority, but always the least of priorities. This has to change. It has to become a more important priority for the Canadian Armed Forces.

19 See Martin Auger, Marie Dumont and Christina Yeung, “[Canadian and Global Military Responses to the COVID-19 Pandemic](#),” HillNotes, Library of Parliament, 3 June 2020.



Dr. Saideman also drew attention to the effect of climate-related emergencies on the CAF's ability to defend Canada and focus on military duties, stating:

The reality is that the CAF is spending more of its time dealing with floods, fires, ice storms and pandemics because climate change is making a dent on our climate. ... It means that the CAF has less money, less time and fewer resources to deal with other problems. ... It interrupts training cycles and it interrupts other things. The CAF is strained.

According to Dr. Saideman, if the expectation is that civilian authorities will continue to request the CAF's assistance during domestic emergencies and the number of domestic operations will continue to grow in the coming years, then Canada should provide the CAF with the resources needed to provide assistance. Dr. Saideman added that:

[w]e need to tell the military that domestic emergency operations are not just an inconvenience getting in the way of expeditionary operations. They are a co-priority with these operations elsewhere. ... We've faced greater harm from these emergencies than from any foreign aggression in any recent time frame.

In agreeing with Dr. Saideman, [Dr. Perry](#) warned that the "changing climate and the current pandemic have resulted in deployments across Canada more frequently, and for new and unanticipated purposes." In Dr. Perry's opinion, if the Government of Canada anticipates deploying the CAF domestically with the same scale and frequency as it has recently, the Government should re-evaluate both the full set of missions that the CAF is being asked to perform and the resources available for those missions. Dr. Perry explained:

Defence planning presumes the military will be a force of last resort for domestic operations, but that premise no longer appears valid. If the military has become the force of choice for providing domestic assistance, and those roles are prioritized, that will necessarily reduce the operational readiness of the military to perform other missions by impacting training, equipment usage and personnel operational tempo. If that kind of defence reorientation is desired, it should be done purposefully and with any required resourcing trade-offs made deliberately.

Some witnesses commented that military aid to the civil power should be re-evaluated. According to [Dr. Perry](#), consideration should be given to whether it would be more cost-effective and efficient to have support provided by the CAF or by dedicated, civilian-led organizations. Dr. Perry speculated that "there might be other bodies in the federal government or other levels and types of support that could provide some of the assistance that we are increasingly calling on the military to do"; these other entities could include some construction companies. As well, Dr. Perry mentioned that, every time the CAF is called upon to fight forest fires, respond to floods or undertake other

activities that could be done by civilian first responders, CAF personnel are not focusing on other military duties, which could affect operational readiness when dealing with military threats. Dr. Perry said that the CAF has been “very successful” at assisting civilian authorities, but added that:

[the assistance is] coming at a cost in terms of its ability to simply do something else, whether that's collective training, being prepared on an individual basis, or doing things like vehicle maintenance. You're making a trade-off every time you deploy somebody to take on that type of task. While they can do it quite effectively, it simply means that they're unable to do something else at the same time.

Regarding whether Canada should have a National Guard of the type that exists in the United States, either to augment civilian first responders or to deploy rapidly in times of major disaster, Dr. Perry commented that “there's a lot of merit in looking carefully at that type of model,” but that it “would obviously require additional resources, people and specific training.” In Dr. Perry’s view, the adoption of any such model should not occur at the detriment of the CAF’s combat capabilities, and “the focus has to always remain on ... operational war footing. ... We're not going to ever look at other public servants to deploy abroad and do those types of things. Only the CAF can do it. Preparing for war and defending the country against military threats is the prime duty of the CAF.” [Dr. Perry](#) noted that, if the Government of Canada were to decide to increase reliance on the CAF for aid to the civil power, then the CAF should receive more resources, as well as specific and dedicated training, on those duties; in addition, the expectations of recruits when they join the CAF should be managed.

[Mr. Robertson](#) argued that, instead of continuing to rely on the CAF as first responders to deal with floods, fires and ice storms, and to help in retirement homes during pandemics, a “corps of volunteers” should be created to assist civilian authorities, and to complement civilian defence and disaster relief efforts. In agreeing, [Dr. Hampson](#) suggested that, instead of relying on the CAF, Canada should establish a semi-professional volunteer force that deals specifically with domestic natural disaster and civil emergencies. In explaining that Germany may provide a model, Dr. Hampson stated:

We're using our military domestically for various kinds of disasters, emergency kinds of activities. I would suggest that's not a very good use of our military. It's a very expensive snow shovel to send to Newfoundland. We should be following the German example. They have an all-volunteer force of some 100,000 civilians who are well trained to deal with emergencies. ... That's something we should be thinking about very seriously here in Canada.



IMPROVING THE OPERATIONAL READINESS OF THE CANADIAN ARMED FORCES

Witnesses spoke to the Committee about how—in response to global threats and as part of its international commitments—Canada’s allies are increasingly calling on the country to invest in its military, and to support and enhance its contributions to military alliances and operations at home and abroad. For them, the CAF’s operational readiness to address new and emerging threats, and to adapt to a rapidly changing global security environment, must be a key priority; Canada must assess thoroughly, understand clearly and prioritize strategically the threats and the actions needed to address them. In that context, they identified a number of areas where improvements could be made to strengthen the CAF and enhance its operational readiness. In particular, they focused on Canada’s defence policy, defence spending, CAF recruitment and retention, defence procurement, cognitive and cyber warfare capabilities, and a military presence in the Indo-Pacific region.

Concerning the CAF’s operational readiness to address threats and its ability to adapt to changes, [Dr. Leuprecht](#) asserted that “the Canadian Armed Forces is keeping its head above water, but it is probably treading water,” and “it will be unable to continue to do so if the organization stays the course.” According to Dr. Leuprecht, a greater focus on the future is needed: “We have the right forces for today but not for tomorrow, and we have no plan to right-size tomorrow’s CAF and ensure that it is fit for purpose.”

[Mr. Fadden](#) warned that Canada must avoid the mistake of focusing on “past threats” and preparing to fight the last war, and must instead focus on “the nature of current and future warfare for which governments and the [CAF] must prepare.” In Mr. Fadden’s opinion, it is important to understand the threat environment, and to select and prioritize the types of capabilities that the CAF requires to address those threats.

Developing a New Defence Policy

Several witnesses argued that Canada should develop a new defence policy. In noting that several years have passed since “Strong, Secure, Engaged” was released in 2017, [Dr. Fergusson](#) emphasized that the threat environment has changed since then, giving rise to a “need for a defence review” and a defence policy that highlights threats, priorities and investments in military capabilities with a view to maximizing outcomes. As well, Dr. Fergusson observed that DND has been lapsing funds annually for several years, which should not be happening.

A number of witnesses advocated the development of a new defence policy alongside new foreign and national security policies. According to [Dr. Leuprecht](#), Canada needs a white paper on defence that is part of an integrated review of foreign policy, defence, security and international development; this approach was not used in relation to “Strong, Secure, Engaged.” In Dr. Leuprecht’s view, working in “silos” resulted in a defence policy that “was effectively out of date the day we introduced it.” Dr. Leuprecht warned that, as a result, “we have no plan for tomorrow’s force.” In agreeing, [Dr. Perry](#) argued that a new defence policy is needed to re-evaluate “what Canada is asking its armed forces to do and the resources required to do it,” while [Mr. Rasiulis](#) stressed that co-development with a new foreign affairs policy should occur because “the military ... works in conjunction with diplomacy. The two go together.”

[Mr. Robertson](#) said that a review of defence, foreign affairs and national security is needed as threats to Canada continue to evolve, suggesting that “[c]hanging geopolitics and new threats require a new grand strategy that combines purpose, priorities and budget.” In Mr. Robertson’s opinion,

[c]hanging geopolitics means that the insurance premiums for national security have gone up. We are going to have to find more money for defence, and also for the civil instruments of national security. This means more investment in diplomacy and development, and in communicating abroad our messages on democracy, multilateralism and a rules-based order. Military power wins battles, but to win wars in today’s world requires both hard power and soft power. In our meaner, messier world, Canada needs more of each.

[Mr. Mulroney](#) suggested that Canada’s foreign affairs and national defence policies have been “disconnected for a long time,” an outcome that is largely the result of a “failure to think strategically” and to take foreign policy and national defence seriously within government. According to Mr. Mulroney, this disconnect in Canada between foreign policy and defence policy is affecting the country’s relationship with allies, and Canada has “slipped” in importance internationally. In agreeing, [Mr. Robertson](#) noted that, “without an overarching strategy ... [Canada] will continue to be late, unprepared and obliged to follow rather than lead” on the international stage.

Some witnesses commented that Canada should emulate the United States in undertaking quadrennial defence policy reviews. In [Dr. Saideman](#)’s view, “[w]e need to have benchmarks that we regularly evaluate,” and quadrennial reviews would: help to provide greater accountability and oversight of the CAF; allow the Government of Canada and the CAF to adapt more rapidly to new threats and changes in the global security environment; and “build up ... habits for regular evaluations” within DND and the CAF.



(See Recommendation 2)

Increasing Defence Spending

According to some witnesses, defence spending should be increased. Recognizing the commitment that Canada and other NATO countries made to allocate at least 2% of their gross domestic product (GDP) to defence spending, several supported Canada attaining this goal. According to the [Public Accounts of Canada](#), Canada's actual defence spending totalled \$26.8 billion in 2020–2021. [SIPRI](#) has reported that Canada was the world's 13th largest military spender in 2021, while [NATO](#) has indicated that Canada currently spends about 1.36% of GDP on defence. The Government of Canada's 7 April 2022 [federal budget](#) announced that the defence budget would be increased by approximately \$8 billion in new funding over five years, to reach about 1.5% of GDP by 2026–2027.

[Mr. Angell](#) noted that Canada is currently not spending 2% of GDP on defence, although defence expenditures have risen in recent years. Concerning NATO's 2% goal, Mr. Angell stated:

The 2% of funding issue is part of a package of commitments that [NATO] leaders entered into in 2014 to work towards spending 2% of GDP on defence and commitments relating to capacity. ... Canada continues to make a very substantial contribution. ... Under the *Strong, Secure, Engaged* defence policy, we've been increasing our defence expenditure by 70% over a 10-year period, which has resulted in Canada being amongst the allies with the largest actual increase in defence expenditure. ... We have a commitment to increase the defence expenditure, but not over the 2% line.

In observing that Canada's "defence spending is between 1.3% and 1.4%" of GDP when "there is a ... [NATO] commitment to do 2%," [Mr. Colby](#) said that "Canada is [not] punching above its weight" in NATO. [Vice-Admiral \(Retired\) Hawco](#) commented that several NATO countries—including Germany—have recently increased their defence spending above 2% of GDP because of growing tensions with Russia, and suggested that Canada would be a better NATO partner if the country were to allocate a higher proportion of GDP to national defence. [Mr. Colby](#) asserted that "Australia is spending well over 2% of its GDP on defence," and argued that "there's no reason we can't encourage Canada" to do the same.

Several witnesses mentioned that Canada spent more than 2% of GDP on defence in the past. [Mr. Taillon](#) underscored that, during the Second World War, Canada "had a million people under arms" and the "fourth-largest armed forces in the world"; the country also continued to make substantial investments in the CAF during the Cold War. [Dr. Hampson](#)

contended that the “last time Canada hit the 2% level of GDP in defence spending was in 1988, just before the Cold War ended,” and asserted that “it has been a steady downhill ever since.”

However, some witnesses referred to NATO’s 2% goal as an arbitrary number. In [Dr. Kimball](#)’s opinion, “2% [of GDP] is clearly a political target” and does “not come from any sort of quantitative analysis” or from “any sort of strategic analysis or anything like that.” According to Dr. Kimball, the goal “doesn't really say very much about what you're actually doing” in terms of burden sharing, or the leadership and capabilities brought to NATO. For [Dr. Hampson](#), the 2% goal is “a crude metric,” while for [Dr. Huebert](#) it is a “political target.” In Dr. Huebert’s view, it is capability—not numbers—that is important: “It really comes down to [having] the ability to deter growing aggressor states and fight in a collective security environment,” and to having the “types of forces” that are needed “to actually give effect” and deal successfully with the various threats in the world today.

[Dr. Leuprecht](#) maintained that defence spending is needed to ensure the CAF’s operational readiness, especially in today’s increasingly complex and dangerous global security environment. In highlighting the CAF’s need for resources, [Dr. Leuprecht](#) underscored that “[t]oday's CAF is expected to contribute across a full spectrum of missions.” Dr. Leuprecht made particular mention of the following CAF activities: preparing for large-scale conventional warfare; advising and assisting in building capacity and training foreign troops; contributing forces to NATO deterrence measures in Eastern Europe; contributing to UN peacekeeping and peacemaking operations; advancing the Government of Canada’s feminist international assistance policy; dispatching special operations forces to various locations throughout the world; preparing to deter violent extremists and terrorism; cooperating with the United States in defending North America; and assisting civilian authorities in times of domestic emergencies. In Dr. Leuprecht’s opinion, “never has the CAF been more instrumental to advancing Canada’s interests, and yet never has it been asked to do so much with so little.”

Several witnesses referred to the CAF’s personnel and equipment shortages as an indication of the need to increase defence spending. [Dr. Perry](#) highlighted shortfalls in military equipment maintenance and support because of inadequate funds, which has implications for the CAF’s operational readiness and the serviceability of its fleets of aircraft, ships and vehicles.

(See Recommendation 1)



Resolving Recruitment and Retention Challenges

A number of witnesses focused on the impact of recruitment and retention challenges on the CAF's operational readiness. [Dr. Hampson](#) emphasized that—at full strength—the CAF should have a combined total of 100,000 Regular Force and Reserve Force personnel; “today it's facing a shortfall of 12,000 and the situation appears to be worsening.” [Major-General Prévost](#) characterized CAF personnel shortfalls as a “threat” to operational readiness and as an issue of great concern within the CAF. In asserting that “[e]veryone in the Department [of National Defence] is working hard to increase recruitment efforts, to change our policies and to effect a culture change,” Major-General Prévost explained that:

[w]e need to recruit more. We need to rebuild the force. Right now, our force has some gaps in personnel. We have to look at our personnel policies. We have to look at our culture change. All of that together is what [the] CAF needs to do over the next coming years to tackle the challenges of the future.

[Lieutenant-General \(Retired\) Semianiw](#) said that the “number one investment needs to be people.” In making a distinction between how shortfalls in military equipment and in personnel can be addressed, Lieutenant-General (Retired) Semianiw asserted that equipment shortfalls can often be overcome relatively rapidly by purchasing equipment “off the shelf”; this approach does not work with personnel because it takes 20 years “to have a sergeant with 20 years of experience.” In agreeing, [Dr. Leuprecht](#) emphasized that the CAF's “greatest asset, and its greatest challenge, is not money; it is people.” In Dr. Leuprecht's view, it takes approximately “seven years and one million dollars to generate a fully trained officer.” [Dr. Kimball](#) held a similar view, suggesting that “[t]he most important investment we need to make today is to invest more in our people” and their talents, and “to convince the next generation of young Canadians to join the military forces.”

Some witnesses proposed that the CAF must become more diverse through recruiting more women, Indigenous peoples and people from racialized communities.

[Dr. Leuprecht](#) noted that “organizations that are more diverse tend to perform better; they're more productive and more creative, so there's a general case to be made for diversity.” For [Dr. Kimball](#), tapping into Canada's diverse and multicultural population is important because “one of the strengths of Canada's forces is literally the diversity of the people they can put in the field.”

Several witnesses acknowledged that the CAF must address the issue of sexual misconduct and engage in culture change within the CAF in order to attract new recruits and retain personnel. According to [Dr. Saideman](#), at the present time, a major threat to

the CAF is “the CAF itself,” and “sexual misconduct is just one part of the larger abuse of power crisis. We've seen numerous generals and admirals lose their positions because of poor behaviour, and this creates a chilling effect.” Dr. Saideman also highlighted that there are “many stories of resentment and feuds between the two towers, between DND and CAF,” and that, “[g]iven this environment, plus a good job market, we should not be surprised that people do not want to join or stay in the CAF.”

Mr. Robertson argued that the CAF should review its terms of service for military personnel as a way to recruit and retain people, and commented:

We've prioritized cultural change to address sexual misconduct. We also need to look at the terms and conditions of service. Let's think creatively how we grow, train and attract the kind of talent that can master the technological challenges of our digital age and address new threats like cyberwarfare and disinformation.

Dr. Leuprecht contended that recruitment is not only about hiring people and filling quotas, but also about professional development. In noting the intense competition from the private sector for specialized and highly skilled trades, and private-sector salaries and benefits that often exceed those in the CAF, Dr. Leuprecht emphasized a particular need for highly trained cyber specialists.

As well, Dr. Leuprecht suggested that the CAF could increase diversity and address shortages for certain skilled trades through “lateral hirings,” especially for highly educated specialist trades that require many years of training and experience. In Dr. Leuprecht's opinion,

[t]he challenge ... is that the CAF is on a 30-year timeline from the time you recruit someone until they actually rise to the senior ranks. Direct entry will allow us to remedy some of those shortcomings in staffing. Yes, it's about making the organization more diverse, but I think many of the skill sets that the CAF actually needs now are skill sets where the diverse components of Canadian society are disproportionately represented. Bringing people in laterally not only makes the organization more diverse; it also helps us remedy some of those shortcomings.

In suggesting Germany as a model, Dr. Leuprecht pointed out that the militaries in other countries are using lateral hirings to attract people with specialized skilled sets, and said:

One of the ways Germany fills ... some of its cyber-trades is by creating a direct entry program for people with the specialized Ph.D.'s in computer science and electrical engineering, and so forth. They make them lieutenant-colonels and they remain lieutenant-colonels for life. Why lieutenant-colonel? It's because that's roughly the pay equivalent they would get in industry. We don't have anything like that here.



Dr. Leuprecht acknowledged that implementing a lateral hirings model in Canada would require changes in various areas, including to recruitment and remuneration frameworks—which would be “extremely hard to do, in part, because remuneration is tied to rank”—and to both uniform requirements for some trades and the universality of service requirement that obliges all personnel to meet certain basic operational standards and be readily deployable.

[Mr. Robertson](#) supported Dr. Leuprecht’s suggestion of bringing people into the CAF laterally at the rank of lieutenant-colonel to address shortages in certain specialized trades. In noting that Canada’s foreign service and various federal departments hire laterally to enhance capabilities and address skilled trades shortages, Mr. Robertson stated that the CAF could benefit from adopting a similar practice.

According to [Dr. Leuprecht](#), the CAF could attract recruits through greater education and outreach efforts, since “the Canadian public needs to be better educated in terms of the importance of its armed forces and the value of democracy and public service and serving one’s country.” In Dr. Leuprecht’s view, “there are huge misconceptions about the role that institutions such as the Canadian Armed Forces play in terms of our domestic, regional and international interests.”

As another means of increasing recruitment in the CAF, [Dr. Saideman](#) suggested that Canada should consider “military service as a pathway to citizenship,” highlighting that:

[t]he U.S. has long offered citizenship to people elsewhere who then become citizens along the way. This would not be easy, but it would help to develop a wider, deeper and more diverse pool of recruits. ... Just because it's hard doesn't mean we shouldn't try to do these things. We can do it too. The very least we can do is reduce the obstacles to immigrants already living here, as we need their skills, their diverse perspectives and their energy.

[Dr. Leuprecht](#) underscored the urgent need to resolve the CAF’s recruitment and retention problems, warning that “[i]f we can't attract enough [human] resources, the situation is going to get worse” for two reasons:

One is that the labour market ... is going to get tighter, and the other is that we continue to have declining fertility rates in this country. As a result, you're not going to be able to find the people you need. Therefore, we need to rethink how we bring people into the organization.

(See Recommendation 11)

Reforming and Accelerating Defence Procurement

Several witnesses focused on the need to reform defence procurement in Canada, and to accelerate the delivery of new weapons systems and military equipment to the CAF. [Mr. Robertson](#) noted that “our approach to addressing defence modernization is taking far too long to produce any useful results,” which is affecting the CAF’s operational readiness.

Witnesses also raised concerns about the extent to which defence procurement is too political in Canada. [Dr. Huebert](#) suggested that “Canada has one of the most highly politicized procurement processes” in the world, and argued that the processes in such like-minded countries as Australia, Denmark, Finland, Germany, Japan, the Netherlands and the United Kingdom are far less political, although “by no means perfect.” According to Dr. Huebert, those countries “are able to achieve a speed of decision that Canada simply hasn’t been able to equal.” Dr. Huebert emphasized that Finland was able to make a decision about buying the Lockheed Martin F-35 Lightning II jet fighter aircraft within a two-year period, and mentioned the “bipartisan” approach to defence procurement decisions in Australia and Japan.

In [Dr. Hampson](#)’s opinion, “we’re moving far too slowly and far too inefficiently,” and “[e]very time there’s a change in government [in Canada], some program gets cancelled and things get put on the back burner, only to resurface in a decision four years later.” According to [Mr. Robertson](#), who mentioned all-party unity, Canada needs to de-politicize defence procurement, which “has been a problem for a long time” and “transcends governments.”

A number of witnesses spoke about the need to accelerate the delivery of certain key army, navy and air force procurement projects. They drew attention to some complex, costly and high-profile defence procurement projects that are currently underway, including two of the most expensive in Canada’s history: the Canadian Surface Combatant Project, which will replace the Royal Canadian Navy’s destroyers and frigates with 15 new warships to be built by Irving Shipbuilding in Halifax, Nova Scotia; and the Future Fighter Capability Project, which will replace Canada’s fleet of CF-18 Hornets with 88 F-35 jet fighters.

[Dr. Perry](#) described the Canadian Surface Combatant Project as DND’s most costly ongoing defence procurement project. [DND](#) has said that the current estimated cost of this project is between \$56 billion to \$60 billion. Dr. Perry predicted that the new warships “are going to be very capable and very suited” to operating in different parts of the world, including the Atlantic Ocean and the Indo-Pacific region. As well, Dr. Perry



expressed the hope that Canada would purchase all 15 warships, and not reduce that number in future years.

[Major-General Stephen Kelsey](#), the CAF's Chief of Force Development, focused on the Future Fighter Capability Project and referred to the Government of Canada's 28 March 2022 [decision](#) to acquire the F-35s. [DND](#) has stated that the current estimated cost of the project is between \$15 billion and \$19 billion. [Major-General Kelsey](#) asserted that the F-35s will play a crucial in NORAD and will be able to function in the Arctic.

[Dr. Perry](#) identified other defence procurement projects are underway, including the Arctic and Offshore Patrol Ships, the Joint Support Ships, the Strategic Tanker Transport Aircraft, the Remotely Piloted Aircraft Systems and various armoured vehicles. In Dr. Perry's view, some of those projects could be accelerated, including the National Shipbuilding Strategy, which has been "moving forward but slower than anticipated." Dr. Perry underscored that the ships associated with that strategy "will be vital" to the Royal Canadian Navy and suggested that, until they are delivered, "our options in the Pacific in particular will be a lot more limited than they hopefully will be once those ships arrive."

With a focus on new defence procurement projects, [Dr. Perry](#), [Mr. Robertson](#) and [Lieutenant-General \(Retired\) Semianiw](#) advocated replacing Canada's Victoria-class submarine fleet with a new class of submarines capable of operating in the Arctic. [Vice-Admiral \(Retired\) Hawco](#) stressed the need for Canada to invest in logistical sealift capabilities to enhance the CAF's capacity to move its personnel and equipment easily and quickly to various theatres of operations overseas, while [Major-General Prévost](#) discussed the acquisition of ground-based air defence for the CAF.

(See Recommendations 12 and 13)

Investing in Cognitive and Cyber Warfare Capabilities

Some witnesses argued that Canada should be more actively engaged in cognitive and cyber warfare, and in combating disinformation and foreign influences. [Mr. Kolga](#) stated:

I think it's extremely important that our forces be equipped to deal with cognitive warfare. ... This is the 21st-century battlefield, and our forces are being targeted regularly, especially in places like Latvia and Ukraine. ... We need to make sure that our forces are equipped with the resources to defend against this.

In Mr. Kolga's opinion, CAF personnel—"whether reservists or regular forces"—should be "trained to have at least the basic resources to detect information warfare and to be able to cognitively recognize and handle it when they do see it."

Witnesses also noted that cognitive warfare and foreign disinformation campaigns target all Canadians, not just CAF personnel. According to [Mr. Fadden](#), a key disinformation-related challenge is "to convince the Canadian population ... that this is a risk." In supporting public outreach as an important tool to fight disinformation, Mr. Fadden suggested that Canada should establish a dedicated federal agency with a mandate to educate the public about disinformation and to address disinformation.

Several witnesses highlighted the need to invest in cyber defence capabilities to counter cyber threats. [Dr. Perry](#) characterized cybersecurity as a "key area" of concern for a number of years, and contended that "it's been recognized that we don't have enough capacity to adequately engage in that modern field of warfare." In Dr. Perry's view, cyber defence "should be an area of focus and potentially an area of particular strength for Canada looking ahead," with China and Russia both actively engaged in cyber warfare and posing a threat to Canada and its interests. Dr. Perry asserted that Canada should have "a sophisticated understanding of how that all works, a good ability to defend our own networks, and an ability to take so-called offensive action, if that's what the Canadian interests require" In agreeing with the need to invest in cyber defence capabilities, [Dr. Leuprecht](#) stated:

We live in a globalized world where, ultimately, this is a space we cannot play defence; we have to play offence. We have to know what the adversary is up to, what its capabilities are and what its intent is before it is ever able to go after us. The biggest challenge that we have in the government is old networks. ... We can invest ... in people and so forth all we want, but the older our networks, the more vulnerable we become. There's an urgent need for an investment in our networks by the Government of Canada.

[Benoît Dupont](#), Professor and Canada Research Chair in Cybersecurity at the Université de Montréal, urged the CAF to recruit and train more cybersecurity experts. In acknowledging that there is a "general labour shortage in this field ... affecting the private sector" and that the CAF has to compete with the private sector for personnel, Mr. Dupont suggested that the CAF should review and develop new recruitment strategies to attract cybersecurity experts. Mr. Dupont explained that:

[t]he armed forces will have to be creative if they are going to attract skilled [cybersecurity] workers. Some countries have already introduced specific recruitment strategies for their armed forces, while others have opted to build reserve forces with specialized skills to quickly mobilize skilled personnel in times of crisis. To my knowledge, Canada's examination of the issue is still in its infancy.



Mr. Dupont indicated that Europe has some “worthwhile initiatives.” In particular, Mr. Dupont mentioned that France and the United Kingdom created cyber defence reserve units “to attract people from the private sector to work on matters of national security on a temporary basis,” while Germany established a “specific recruitment pathway” to entice specialized cybersecurity experts by recruiting them at the rank of lieutenant-colonel.

That said, [Mr. Fadden](#) emphasized that the Communications Security Establishment is responsible for cybersecurity in Canada, while DND is responsible for protecting its own system. In Mr. Fadden’s opinion, DND and the CAF should not be given responsibility for protecting Canada’s civilians against cyber threats. According to Mr. Fadden, DND and the CAF “should be concerned about what is going on outside the country, while remaining very well informed about what is going on here,” but the Communications Security Establishment “[should] protect the private sector” and should be given “a much more public and much clearer mandate.” Mr. Fadden acknowledged that there should be discussions about the aspects of the cyber-environment for which DND and CAF and the Communications Security Establishment are each responsible because “overlap is not very useful.”

[Ms. Henderson](#) and [Mr. Khoury](#) underscored the extent to which cybersecurity is a whole-of-government and “whole of society” concern, and mentioned that both the Canadian Security Intelligence Service and the Communications Security Establishment collaborate with the CAF and DND, and with other partners, to defend Canada from cyber threats. Mr. Khoury emphasized that “it will take all of our expertise and collaboration to protect Canada and Canadians” in the cyber realm.

(See Recommendations 9 and 10)

Increasing Canada’s Military Presence in the Indo-Pacific Region

Several witnesses noted the rise of China and identified a need for Canada to pay greater attention to the security situation in the Indo-Pacific region, including through an enhanced military presence. [Mr. Mulroney](#) said that Canada should “think about where the greatest risks to our sovereignty and to our national security are”: “they are now coming from the Pacific.” In Mr. Mulroney’s view, “investing seriously in the expeditionary capability of the Canadian Forces” is “essential if we are to be welcomed into new alliances [in the Indo-Pacific region] and if our voice is to be heard in the conversations that matter.”

[Dr. Hampson](#) suggested that Canada has been “rather absent from the [Indo-Pacific] region” from a security standpoint, asserting that the country was “blindsided” by—and not invited to join—the recent security pact among Australia, the United Kingdom and the United States. In Dr. Hampson’s opinion, Canada should “have more assets in the Pacific. We need, quite frankly, to decide which countries are going to be priorities in terms of developing deeper partnerships.” Dr. Hampson particularly mentioned an increase in military attachés in the region, the creation of stronger defence partnerships with Australia, Japan, Indonesia and South Korea, and—perhaps—the development of defence ties with Taiwan.

In agreeing with Dr. Hampson concerning the need for enhanced Canadian military involvement in the Indo-Pacific region, [Dr. Perry](#) said:

I'd like us much more involved in that region of the world on a more consistent basis. It's a place that we tend to visit episodically. I don't know that we have spent enough time staying in the region and learning how to really operate and understand what's happening there.

According to Dr. Perry, in the Indo-Pacific region, Canada lacks something from which the country benefits in Europe: a “standing, formalized, regular, institutionalized set of arrangements.” With particular mention of Australia, Japan, Malaysia, New Zealand, Singapore, South Korea and potentially Vietnam, Dr. Perry encouraged “defence co-operation agreements, understandings about different types of intelligence or logistics support and sharing” with like-minded countries in the region. As well, Dr. Perry drew attention to “establishing ... relationships, setting up mechanisms and then actually trying to use them in peacetime in a training environment, so we could call upon them if we really needed to later.”

[Dr. Perry](#) acknowledged that “NATO has been a cornerstone of our international policy and it remains so today,” but expressed concern that “we've put so many of our eggs in that particular basket.” In Dr. Perry’s view, Canada should put into the Indo-Pacific region the same type of “sustained regular investments” and presence that it puts into NATO and Europe.

That said, [Mr. Rasiulis](#) indicated that Canada should continue to focus on NATO and Europe, stating:

We're very Eurocentric in terms of our current deployment. This is very much part of our history. We've always defined Europe. ... The China factor is extremely important. ... However, ... there's a question of prioritization of resources. Canada right now does not have the sufficient force levels to maintain a presence in Europe and also address issues in the Pacific. That would largely mean a naval deployment for Canada, and currently we simply lack the resources to do both. From the Canadian point of view,



the European connection ... should remain our priority. ... Europe is a major trading partner of Canada's. We have a long association with Europe, culturally, ethnically, and business-wise. I'm very comfortable with the current position. It's a good division of labour, where the United States takes on the Pacific theatre and Canada takes on the Euro-Atlantic theatre.

[Mr. Colby](#) agreed with Mr. Rasiulis' assertion that Canada lacks the resources needed to be present in multiple theatres of operations worldwide. Mr. Colby also advocated a continued focus on Europe, and mentioned the Arctic. According to Mr. Colby, focusing on Europe and the Arctic with NATO allies might be "much better than if Canada puts a little over in Asia, a little in Europe, a little in the Arctic, a little in South America, and then we end up with very little." Regarding a Canadian military contribution in the Indo-Pacific region, Mr. Colby contended that there is not a "realistic prospect of Canada making a material contribution," but suggested that—in relation to China—it would be "very important" for Canada to still "be aligned" with the United States, its other Five Eyes partners and additional allies in the region.

That said, [Mr. Fadden](#) held the view that the choice is not binary: "the world is sufficiently integrated today that we cannot just say that we're going to focus on only the Indo-Pacific or only Europe." Mr. Fadden explained:

Whether we like it or not, we are a western nation and that means we are connected ... to Europe. We do a great deal of trade with them, and our ties to them are historical. We cannot ignore Europe and Russia. ... On the other hand, if we're going to deal effectively with the world as we find it today, then, in concert with our allies, we have to do something about China.

(See Recommendation 14)

CONCLUSION AND RECOMMENDATIONS

In recent years, emerging threats and a rapidly changing global security environment have prompted many countries worldwide to make unprecedented investments in national security and defence, including in their armed forces. Canada and its NATO allies are not exceptions to this trend. The return of global power competition and the increasingly aggressive behaviours of certain revisionist states—notably China and Russia—have led to growing tensions between and among countries, and have caused instability and conflict in several regions of the world. At this time, perhaps the most notable example is Russia’s most recent unprovoked, unwarranted and unjustified invasion of Ukraine. At the same time, rapid advancements in military technologies are transforming warfare, and are leading countries to invest in a wide range of sophisticated and expensive capabilities designed to protect their territories and their residents from new and imminent dangers.

These developments are among those that are occurring at a time when governments around the world are coping with a range of other challenges. One of the most notable of these is the worst pandemic in more than 100 years: the COVID-19 pandemic. According to the [World Health Organization](#), the pandemic has—thus far—killed more than 6.3 million people worldwide since 2020 and has infected more than 530 million individuals. During the pandemic, new inequalities have arisen, existing inequalities have been exacerbated, and disinformation—about the existence of the COVID-19 virus, vaccine efficacy and effective treatments, among others—has been spreading around the world. Ongoing security-related challenges also exist, including climate change and a rise in both extreme-weather emergencies and natural disasters, weak governance in fragile states, instability in several regions of the world, violent extremism, terrorism and cyber threats.

During the study, the Committee’s witnesses repeatedly emphasized the need for Canada to invest in its military capabilities so that the CAF is always ready to fulfill its mandate and mission. The Committee appreciates the witnesses’ identification of areas where improvements are needed. The Committee and the witnesses share a common goal: ensure that, in our increasingly dangerous and volatile threat environment, the CAF’s operational readiness is assured, which will require a focus on policy, personnel, equipment, training and alliances with like-minded partners. As well, the Committee and the witnesses share a common conclusion: the status quo no longer works, and changes—many of which must occur immediately—are needed to protect our national interests.



From the Committee's perspective, Canada and the CAF must continue to monitor the global threat landscape closely and respond quickly to new future threats. Adapting to changes in the threat environment is key to operational readiness, which requires the CAF to be aware of the threats and the type of capabilities required to defend against them. In this time of rapid changes in military technologies, as well as the growing complexity and cost of weapons systems and military equipment, Canada and the CAF must understand and prioritize the threats that the country faces domestically and throughout the world before deciding on the capabilities and tools needed to address them.

The Committee is convinced that, in making the right decisions and the right investments to ensure the CAF's operational readiness, the Government of Canada must always be focused on what is needed to protect our country and our continent, and to continue to contribute to peace, stability and security around the world for years to come.

In light of the rapidly changing global threat environment, the Committee has decided that the present study will remain ongoing so that evolving defence concerns may be reviewed and reported on as necessary.

In light of the foregoing, the Committee recommends:

LIST OF PROPOSED RECOMMENDATIONS

Recommendation 1

That, in light of the current situation in Ukraine and rising tensions between the North Atlantic Treaty Organization and Russia, the Government of Canada increase annual defence spending to meet the 2% of gross domestic product commitment agreed to by NATO members in 2014.

Recommendation 2

That, in concert with increasing the amount allocated to defence spending, the Government of Canada undertake a review of the current defence policy and undertake more frequent defence policy reviews, at a minimum every four years, to ensure that Canada and the Canadian Armed Forces make the right decisions, invest in the right capabilities, and remain ready to address existing and future threats, as well as rapid changes in the global security environment.

Recommendation 3

That the Government of Canada consider the establishment of a long-term military presence in Europe as a contribution to the North Atlantic Treaty Organization's defence and deterrence measures against Russia.

Recommendation 4

That the Government of Canada continue to increase military aid to Ukraine by providing additional lethal and non-lethal military equipment. The Government should also consider providing other forms of military assistance, as well as humanitarian aid.

Recommendation 5

That the Government of Canada continue to invest in modernization of the North American Aerospace Defense Command. As well, on an expeditious basis, the Government should make investments designed to replace the North Warning System.

Recommendation 6

That the Government of Canada enhance Canada's Arctic and maritime domain awareness by investing in research and development and acquisition of advanced and innovative surveillance technologies. The focus of these efforts could include drones, satellites and other space-based assets, surface and underwater sensors, underwater autonomous vehicles and modern ground-based radar systems. The Government of Canada procure the capabilities that the Canadian Armed Forces needs to ensure Canada's security, sovereignty, and multi-domain awareness in the Arctic and in all of its maritime approaches.

Recommendation 7

That the Government of Canada strengthen Arctic security and sovereignty by expanding and enhancing equipment, training and logistical support to the Canadian Rangers.

Recommendation 8

That the Government of Canada increase the presence of the Canadian Armed Forces, both Regular and Reserve, in Canada's North, and invest in the infrastructure required to support this increased presence; and that the Government explore the establishment of additional Reserve units in Canada's three territories. These efforts should be undertaken in consultation with relevant Indigenous peoples and communities.



Recommendation 9

That the Government of Canada ensure that Canadian Armed Forces personnel are adequately resourced and trained to operate and defend themselves in a cognitive warfare environment.

Recommendation 10

That the Government of Canada invest in defensive and active cyber operations capabilities. As well, the Government should increase its recruitment and training of cyber specialists in the Canadian Armed Forces and the Communications Security Establishment, and ensure that all federal systems are adequately protected against cyber threats.

Recommendation 11

That the Government of Canada establish strategies, policies and processes designed to ensure the Canadian Armed Force's ability to recruit a greater number of, as well as more diverse and skilled, personnel. As well, measures should be put in place to improve the retention rate in the Canadian Armed Forces. Finally, the Government should ensure that all Canadian Armed Forces personnel receive adequate training and are properly equipped.

Recommendation 12

That the Government of Canada reform defence procurement processes in Canada to ensure that major weapons systems and military equipment are delivered to the Canadian Armed Forces more expeditiously.

Recommendation 13

That, as soon as possible in order to avoid a capability gap, the Government of Canada launch a procurement project to replace Canada's Victoria-class submarines. Under that program, the Government should acquire a class of submarines that would be capable of operating in all maritime environments, including the Arctic.

Recommendation 14

That the Government of Canada consider increasing its military investments and presence in the Indo-Pacific region. As well, the Government should develop defence partnerships with like-minded countries in the region.

APPENDIX A LIST OF WITNESSES

The following table lists the witnesses who appeared before the committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the committee’s [webpage for this study](#).

Organizations and Individuals	Date	Meeting
<p>As an individual</p> <p>Pierre Jolicoeur, Associate Vice-Principal Research Royal Military College of Canada</p> <p>David Mulrone, Former Ambassador of Canada to the People's Republic of China</p> <p>David Perry, President Canadian Global Affairs Institute</p>	2022/02/02	3
<p>Ukrainian Canadian Congress</p> <p>Ihor Michalchyshyn, Executive Director and Chief Executive Officer</p>	2022/02/02	3
<p>As an individual</p> <p>Elbridge A. Colby, Principal and Co-Founder The Marathon Initiative</p> <p>Christian Leuprecht, Professor Royal Military College of Canada, Queen’s University</p> <p>Andrew Rasiulis, Fellow Canadian Global Affairs Institute</p> <p>Colin Robertson, Senior Advisor and Fellow Canadian Global Affairs Institute</p>	2022/02/14	6
<p>As an individual</p> <p>Richard B. Fadden</p> <p>Dr. Fen Osler Hampson, Chancellor's Professor, Carleton University President, World Refugee & Migration Council</p> <p>Marcus Kolga, Senior Fellow Macdonald-Laurier Institute</p> <p>J. Paul de B. Taillon</p>	2022/02/16	7

Organizations and Individuals	Date	Meeting
<p>Department of National Defence</p> <p>Vadm J.R. Auchterlonie, Commander of the Canadian Joint Operations Command</p> <p>Vadm Scott Bishop, Military Representative of Canada to NATO</p> <p>Canadian Armed Forces</p> <p>MGen Michael Wright, Commander</p> <p>Canadian Forces Intelligence Command and Chief of Defence Intelligence</p>	2022/03/02	9
<p>Joint Delegation of Canada to NATO</p> <p>David Angell, Ambassador and Permanent Representative</p>	2022/03/02	9
<p>Department of Foreign Affairs, Trade and Development</p> <p>Kevin Hamilton, Director General</p> <p>International Security Policy</p>	2022/03/09	10
<p>Department of National Defence</p> <p>Paul Prévost, Director of Staff, Strategic Joint Staff</p>	2022/03/09	10
<p>Global Affairs Canada</p> <p>Heidi Kutz, Senior Arctic Official and Director General</p> <p>Arctic, Eurasian, and European Affairs</p>	2022/03/09	10
<p>As an individual</p> <p>Dr. James Fergusson, Professor</p> <p>Centre for Defence and Security Studies, Department of Political Studies, University of Manitoba</p> <p>Dr. Robert Huebert, Associate Professor</p> <p>Department of Political Science, University of Calgary</p> <p>Dr. Anessa Kimball, Associate Professor of Political Science</p> <p>Director, Centre for International Security, École supérieure d'études internationales, Université Laval</p> <p>Dr. Stephen Saideman, Paterson Chair in International Affairs</p> <p>Norman Paterson School of International Affairs, Carleton University</p> <p>LGen Walter Semianiw</p>	2022/03/21	11

Organizations and Individuals	Date	Meeting
As an individual Benoît Dupont, Professor and Canada Research Chair in Cybersecurity Université de Montréal	2022/03/28	13
Canadian Security Intelligence Service Cherie Henderson, Assistant Director Requirements	2022/03/28	13
Communications Security Establishment Sami Khoury, Head Canadian Centre for Cyber Security	2022/03/28	13
Microsoft Canada Inc. John Hewie, National Security Officer	2022/03/28	13
Department of National Defence MGen Stephen Kelsey, Chief of Force Development Canadian Armed Forces Jonathan Quinn, Director General Continental Defence Policy	2022/03/30	14

APPENDIX B LIST OF BRIEFS

The following is an alphabetical list of organizations and individuals who submitted briefs to the committee related to this report. For more information, please consult the committee's [webpage for this study](#).

Alliance Canada Hong Kong

Charron, Andrea

Slovenian Certified Ethical Hackers Foundation

Ukrainian Canadian Congress

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* ([Meetings Nos. 3, 6, 7, 8, 9, 10, 11, 13, 14, 24, 26](#)) is tabled.

Respectfully submitted,

Hon. John McKay
Chair

The Conservative Party of Canada Committee Members wish to add clarity to Paragraph 206 of the National Defence Committee Report on Threat Analysis by adding the word “foreign” before the word “disinformation.”

NDDN — Threat Analysis — 10587823
VERSION 2 — 3 June 2022 — 10:05
Pages 89-90.

206. These developments are among those that are occurring at a time when governments around the world are coping with a range of other challenges. One of the most notable of these is the worst pandemic in more than 100 years: the COVID-19 pandemic. According to the World Health Organization, the pandemic has – thus far – killed more than 6.3 million people worldwide since 2020 and has infected more than 530 million individuals. During the pandemic, new inequalities have arisen, existing inequalities have been exacerbated, and foreign disinformation –about the existence of the COVID-19 virus, vaccine efficacy and effective treatments, among others – has been spreading around the world. Ongoing security-related challenges also exist, including climate change and a rise in both extreme-weather emergencies and natural disasters, weak governance in fragile states, instability in several regions of the world, violent extremism, terrorism and cyber threats.

Please see the relevant testimony below from February 16, 2022:

Mr. Marcus Kolga (Senior Fellow, Macdonald-Laurier Institute, As an Individual):

Mr. Chair and members of the committee, thank you for inviting me to speak with you today about the threat posed to our security and our democracy by foreign influence and information operations.

In addition to being a senior fellow at the Macdonald-Laurier and CDA Institutes, I am the director of DisinfoWatch, a platform that is dedicated to monitoring and exposing foreign information warfare that targets Canada and our allies, and to helping Canadians develop the cognitive resources to allow them to recognize and reject disinformation and influence operations.

As has been repeatedly noted by Canada's intelligence community and the National Security and Intelligence Committee of Parliamentarians, the threat of foreign information warfare and influence operations—known more broadly as cognitive warfare—is persistent and growing. Canada's a significant target for Chinese, Russian and Iranian actors who seek to manipulate our media, elected officials, civil society, armed forces, ethnic communities and Canadian interests with information operations.

During the 2021 federal election, DisinfoWatch first alerted Canadians to a coordinated Chinese government-aligned influence operation that included disinformation on Chinese state media platforms. The Atlantic Council's DFR lab and researchers from McGill University later published similar findings.

Since early 2020, we've observed Russian state media and its proxies here in Canada trying to polarize our society by promoting narratives that take advantage of public fear, anger and confusion that have grown during the COVID pandemic.

I'd like to stress that the Kremlin does not share any ideology or values with any major Canadian political party. Vladimir Putin's only ideology is corruption and power. As such, our democratic values represent an existential threat to his regime, which is why he targets us. Vladimir Putin can only compete with democratic nations that are divided and whose defence alliances, like NATO, are broken.

To achieve this, Russian state actors operating in the shadows of the extreme political left and right seek to divide our society by eroding our bonds within it. In the United States, we've witnessed state actors exploit civil unrest, environmental issues and other sensitive political issues. In Canada, we recently observed Russian state media exploit COVID protests by promoting extremist voices who seek the overthrow of our democratically elected government.

[Mr. Marcus Kolga:](#)

I'll focus specifically on Russia right now.

We know that over the past two years during the pandemic the Russian government has focused its disinformation efforts on exploiting the pandemic and COVID. We were warned already in March of 2020 by the European Union that the Russian government would in fact be doing this. They would try to amplify the effects of COVID and use it to divide us and erode the trust within society, and this is something that we've been tracking all along.

Later that summer, in August 2020, we saw massive anti-vaccination and anti-lockdown protests in Berlin that were covered live by Russian television and certainly promoted by them. The effect of this is that these protests are then legitimized.

Again, these protests may be legitimate. People feel these emotions. They have the fear. There is confusion about COVID. A lot of them are coming out with the best intentions. The fact is that Russia is exploiting those fears and those emotions and is promoting, quite frankly, anti-government narratives within them. This is something that we've seen come out over the past number of weeks in Ottawa. I don't believe that Russia has had a hand in directing what we've seen in Ottawa, but it certainly adds fuel to the extremist elements who are involved there. This is one of the ways they try to undermine our democracy and erode Canadian trust in media, in our elected government and certainly eventually in each other.

SUPPLEMENTARY OPINION NEW DEMOCRATIC PARTY OF CANADA

On behalf of the New Democratic Party, we would first like to thank the witnesses who appeared before the committee, especially those who serve in the Canadian Armed Forces. We also would like to thank the Library of Parliament analysts for putting together an excellent report and the clerk and interpreters for their work.

Canada's military is responsible for three incredibly important roles – defending Canada, protecting Canadians at home, and contributing to a more stable, peaceful world through operations abroad. Across the world we are seeing an increase in tensions as well as armed conflicts. Canadians are also asking more from their military as we see an increase of climate change related disasters.

Unfortunately, after decades of Liberal and Conservative cuts and mismanagement, our military has been left with outdated equipment, inadequate support and an unclear strategic mandate. We need to do better for Canadians in uniform and for the defence of our country.

Canada's New Democrat's vision is a military where Canadian Armed Forces members can work safely, get the support they need when they need it, and count on fair policies to govern their work. We support upgrading outdated equipment and providing a clear mandate while also providing a realistic spending plan to deliver on these goals.

One of the greatest challenges highlighted through the study is the need to improve operational readiness of the Canadian Armed Forces. This includes tackling the problems in recruitment, retention as well as sexual misconduct in the CAF.

Improvements in recruitment, retention

Each year, the Canadian Armed Forces (CAF) must select and train thousands of recruits, and retain a substantial number of its trained personnel, to maintain operational readiness. Our CAF continues to fall short of and has a deficit of 7,500 personnel. To respond to the global threats and domestic challenges we need to have a military that is fully operational.

A lack of inclusion is a major barrier to both retention and recruitment. As an organization, the CAF must attract, recruit, and retain the talent that is representative of our Canadian society. The situation requires serious attention and clear leadership that is sadly missing.

The CAF reported that 71 per cent of the military's workforce is made up of "white males." They have seen a large drop in female recruits following the sexual misconduct allegations that continue to come forward.

New Democrats have called on the government to create a special program within the Canadian Armed Forces aimed at the recruitment of women and under-represented groups as recommended by the Auditor General in 2016.

The NDP has called on the Government of Canada to increase funding for Canadian Armed Forces recruitment to be allocated for services like mobile clinics which would allow those living in remote and rural communities to complete medical examinations closer to home as part of the recruitment process.

Many people with young families who want to start a family worry about what that would mean for their relationships; this can present a barrier in joining the CAF. Members of the CAF are often on their own to find housing, own their own to find a doctor when forced to move, and on their own to find childcare. Many of these services used to be provided by the Government of Canada but have been cut. When it comes to recruitment there is a saying that you recruit the soldier, but you retain the family. The CAF needs to make the necessary investments to retain the family.

Tackle Sexual Misconduct within the CAF

Women in the armed forces should expect their accusations of harassment to be taken seriously however the more we learn, the more we realize that allegations of sexual misconduct towards the most senior members of the Canadian Forces were not taken seriously and outright ignored. All women, including women who serve, deserve much better than that from their government. We need to ensure women who serve can do so equally.

The Canadian government announced a plan to reach 25% women in the CAF by 2026. Without addressing the toxic culture and the sexual misconduct crisis, the CAF won't be able to hit this goal.

We continue to call on the Canadian government to fully implement all recommendations of Justice Deschamps' 2015 report

entitled External Review into Sexual Misconduct and Sexual Harassment in the Canadian Armed Forces. We also call on the government to implement Justice Arbour's 2022 Independent External Comprehensive Review of the Department of National Defence and the Canadian Armed Forces and outlines next steps to address and eradicate sexual harassment and misconduct. Women in the Canadian Armed Forces who continue to wait for a real culture change in the face of sexual misconduct and assault in the military. And instead of implementing the recommendations of the Deschamps Report, the Liberal government has delayed action when the solutions are already known. We have another report, we can't allow for the recommendations not to be implemented any longer.

Supporting Our Members of the Canadian Armed Forces

We need to do better for Canadians in uniform and for the defence of our country. A New Democrats continue to call for the government to make sure that our troops have the equipment, training, and support they need to do the difficult and dangerous work we ask them to undertake. The government needs to ensure that funding supports our national defence and international commitments however it shouldn't tie itself to arbitrary figures like the two percent to GDP for military spending. We in the New Democratic Party don't support Recommendation 1 of this report.

Over time, Canada's defence procurement process has become more complex and bureaucratic as additional federal departments and agencies have become involved. Despite delays, cost overruns and other challenges encountered with defence procurement projects over the past 20 years, the federal government has maintained the current decentralized, multi-departmental process.

Canada needs to streamline our defence procurement system in order to ensure that we get better value for money in defence procurement and to ensure that the job and technology transfer benefits of military procurement flow to Canadian companies and workers.

We should look carefully at the more efficient systems used in Australia and the UK where there is a single minister in charge of defence procurement instead of our needlessly complicated system involving four Ministers and two additional government agencies in order to get sign off on a contract.

In the Prime Minister's mandate letters to the Ministers of Defence, Public Services and Procurement, and Fisheries and Oceans and Coast Guard, Trudeau directed them to establish a centralized procurement process under a new department called Defence Procurement Canada however this promise has yet to be fulfilled.

Committing Canada to be a Force for Peace

Canadians are proud of our country's rich history of international peace building. Over the last 70 years, more than 125,000 Canadians have served as UN peacekeepers. However, in recent years our contributions to global peace have deteriorated. Despite Liberal promises to increase the number of peacekeepers, those efforts have dwindled and today we have just 34 peacekeepers deployed.

On global disarmament, Canada played a lead role in forging the Nuclear Non-Proliferation Treaty in the 1960s but, in 2017, the Trudeau government opposed the Treaty on the Prohibition of nuclear weapons which called for a nuclear weapons-free world. This report makes mention of witnesses discussing joining the U.S. ballistic missile defence program. While Canada made the decision not to take part in ballistic missile defence a decade ago, it is important to reiterate the reasons why that decision should stand. A decade after the U.S. ballistic missile defence program has been created it has achieved a success rate of only 50% even in controlled conditions and, despite billions of dollars spent. The U.S. still has too few interceptors to be effective against Russian or Chinese attacks. We urge the Liberal government to not get caught up in the headlines of ballistic missile defence.

It is clear that BMD is not effective, that the U.S. would in all likelihood keep the system under their own command and not make it a part of NORAD, and that the costs to join such a system this late would be astronomical, especially when considering Canada's other recapitalization needs. Additionally, New Democrats recommend that Canada focus on its efforts to promote non-proliferation of ballistic missiles and not join a system that is likely to spur a new arms race in offensive missile technology.