

**FULL GOVERNMENT OF CANADA RESPONSE TO THE RECOMMENDATIONS OF THE
TWENTY-FOURTH REPORT OF THE STANDING COMMITTEE ON FOREIGN AFFAIRS AND
INTERNATIONAL DEVELOPMENT ENTITLED: NATION-BUILDING AT HOME, VIGILANCE
BEYOND: PREPARING FOR THE COMING DECADES IN THE ARCTIC**

INTRODUCTION

The Government of Canada has carefully reviewed the report of the Standing Committee on Foreign Affairs and International Development (the Committee) and thanks its members for their interest. The government appreciates that the Committee has devoted considerable attention to this important issue and welcomes the continuing interest of the Committee in the government's efforts to ensure that Canada's North remains a prosperous and secure region within a strong and sovereign Canada.

The government is pleased to note that the majority of the Committee's recommendations are aligned with work already being undertaken by the government as well as new actions recently announced in Budget 2019. The government will continue its work to deliver on the new Arctic and Northern Policy Framework and advance our Northern interests domestically and internationally.

Below is the Government of Canada's response to specific recommendations made by the Committee.

MEANINGFUL PARTNERSHIPS WITH INDIGENOUS PEOPLES AND NORTHERN COMMUNITIES

RECOMMENDATION 10

The Government of Canada should develop a co-management framework for Canada's Arctic waters that would see Inuit in a leadership role alongside the federal government, and that would bring together all departments and agencies of the federal and territorial governments that have responsibilities in Canada's Arctic waters, as well as relevant land claims organizations and the Nunavut Marine Council.

RESPONSE: Fisheries and Oceans and the Coast Guard are working collaboratively with Indigenous organizations, stakeholders, and governments on innovative approaches to program and service delivery. In accordance with land claim principles, Fisheries and Oceans has been successfully working towards a co-management approach in the Arctic for many years. The establishment in 2018 of the new Fisheries and Oceans and Coast Guard stand-alone Arctic Region exemplifies the government's commitment to advancing reconciliation and pursuing a renewed relationship with Indigenous peoples. The new Arctic Region will support further co-management advances and improve consistency across the entire Arctic. The Fisheries and Oceans Regional Director General, who is a member of the Northern community and based in Rankin Inlet, along with the Coast Guard Assistant Commissioner based in Yellowknife, have been actively engaging with Indigenous organizations, stakeholders, and governments to

ensure that Northern leaders and communities are involved in the development of the Arctic Region.

In addition, Canada's Oceans Protection Plan has provided funding to Transport Canada and the Canadian Coast Guard to co-lead the development of a co-governance framework for Canada's Arctic waters in partnership with other federal Departments and Inuit and Northern non-Inuit Indigenous organizations. The purpose is to identify a co-governance model and priority investments for service improvements in partnership with Northerners. The first phase of engagement is nearing completion, and a recommendation to the Government of Canada will be made in 2020.

RECOMMENDATION 9

As part of the implementation of the Coast Guard's new operational region in the Arctic, the Government of Canada should take steps, in close collaboration with Inuit organizations and communities, to work toward greater Inuit representation in the Canadian Coast Guard and greater Coast Guard presence across the Canadian Arctic.

RESPONSE: The government agrees with this recommendation. Fisheries and Oceans and the Coast Guard created a new Arctic Region to improve program and service delivery in the North and to better deliver on key priorities such as reconciliation with Indigenous peoples and Canada's Oceans Protection Plan.

The new Arctic Region is providing for greater Coast Guard presence across the Canadian Arctic. Northern Indigenous partners and communities are being actively engaged and their priorities and needs carefully considered in the development of the structure for this new region. One of the objectives of the new Arctic Region is to enhance the recruitment of Indigenous peoples and Northerners into Coast Guard positions. A robust staffing plan which focuses on Indigenous employment is being developed. The Coast Guard has already made progress to strengthen recruitment efforts toward greater Inuit representation in the Coast Guard.

The Coast Guard has hired self-identified Indigenous employees in many areas, including its Operations, Indigenous Relationships and Partnerships and regional teams. The Coast Guard is actively recruiting and building employment support for Indigenous employees in the new Arctic region. In 2019, the Coast Guard hired 6 Indigenous students as part of the Inshore Rescue Boat North program, 5 Indigenous students as part of the Coast Guard crew on vessels in the North this summer and 3 Indigenous students as part of Arctic Community Engagement and Exercising Teams.

Recommendation 19

The Government of Canada should work with territorial, Indigenous and local governments to help secure locally driven solutions to the challenges of clean, reliable and affordable energy in the Canadian Arctic.

RESPONSE: The Government of Canada works closely with territories, Indigenous peoples, and communities to secure clean, reliable and affordable energy in the Arctic. A suite of complementary programs, including renewable energy, energy efficiency and infrastructure projects, are helping northern and Indigenous communities shift to clean energy alternatives, and strengthen capacity, while reducing their reliance on diesel. Together, these programs aim to improve socio-economic conditions, create jobs, improve cost savings and reduce environmental impacts for people living in the north:

- NRCan's Clean Energy for Rural and Remote Communities (CERRC) Program
- NRCan's Impact Canada Indigenous Off-Diesel Initiative
- CIRNAC's Northern Responsible Energy Approach for Community Heat and Electricity (Northern REACHE) program
- INFC's Arctic Energy Fund
- ECCC's Low Carbon Economy Fund
- CanNor's economic development programming

In response to Budget 2019, federal departments are reviewing existing programs to help reduce diesel reliance in Indigenous, northern and remote communities, in order to improve access to the support they need.

Many of these programs support community-driven projects and encourage community ownership and participation. For example, Vuntut Gwitchin First Nation's work to install a solar power generation system will displace diesel and Kivalliq Inuit Association will work on developing a hydroelectric-fibre optic link to connect communities. Collaboration with the Government of the Northwest Territories on the Taltson Hydroelectricity Expansion project will help to facilitate clean power distribution to both Yellowknife and the Slave Geological Province.

With federal support, other activities are helping communities further reduce their reliance on diesel. For example, the communities of Jean Marie River First Nation and Sachs Harbour have piloted a culturally appropriate approach to home energy efficiency retrofits. The National Research Council is developing a technical guide for housing construction in northern and remote areas that will include measures to increase energy efficiency and other priorities such as adaptation.

RECOMMENDATION 20

The Government of Canada should ensure that federal decisions affecting economic development in the Canadian North reflect meaningful consultations with territorial governments and Indigenous organizations, including with respect to the future development of offshore oil and gas.

RESPONSE: The Government of Canada is committed to engaging in meaningful consultation when making decisions affecting economic development in the Canadian North. In collaboration with territorial governments, the Government of Canada continues to facilitate the environmental review process to improve the timeliness, predictability and transparency of northern regulatory review processes for proposed major resource development and infrastructure projects. It also oversees federal crown consultations with Indigenous communities.

Following its announcement of October 2018, the Government of Canada is working with Northerners, Indigenous peoples, and modern treaty as well as self-government partners to establish the governance process and scope of the Arctic offshore five-year science-based review to determine if oil and gas in the Arctic offshore can be developed in a safe and sustainable manner. This review will inform whether Canada's Arctic waters should remain off limits to offshore Arctic oil and gas licensing.

Economic development in the Canadian North must respect the socio-economic objectives and constitutionally protected legal obligations that are found in existing treaties and self-government agreements. The Government of Canada also continues to work with the Government of the Northwest Territories, the Government of Yukon, and the Inuvialuit Regional Corporation on negotiating a co-management of oil and resources and revenue sharing agreement in the Beaufort Sea. If offshore oil and gas activities resume, this joint management structure will allow Northerners to have a say in the exploration for and development of offshore oil and gas resources and ensure that they benefit from these revenues.

RECOMMENDATION 23

In close collaboration with territorial governments, as well as Indigenous organizations and Indigenous development corporations, the Government of Canada should work to close the infrastructure gap between Canada's northern and southern communities, with a particular focus on transportation and connectivity. Funding mechanisms should be sufficiently ambitious in scale as to allow proponents to apply for federal support toward the realization of nation-building projects.

RESPONSE: The Government of Canada has a number of collaborative efforts aimed at developing strategies to address northern infrastructure gaps. Transport Canada is working closely with territorial governments, industry, Indigenous and Inuit partners to develop an Arctic Transportation Policy Framework for better directing the Department's work and

determining priorities to enhance the overall safety, reliability, efficiency, sustainability, and accessibility of the transportation system in Canada's Arctic.

The government continues to invest to improve and expand infrastructure in the North. Budget 2019 increased the allocation of the National Trade Corridors Fund (NTCF) to Arctic and northern regions by \$400 million over eight years, bringing the total allocation to these regions to \$800 million. This will help build new roads and other vital connections to and between Arctic and northern communities, as well as connecting communities to markets. In partnership with the territories and Indigenous groups, the government has already committed more than \$145 million through the NTCF for four projects to improve road and airport infrastructure in each of the three territories and respond to additional pressures on the northern transportation system as a result of climate change. A northern call for proposals closed in March 2019, and the government will announce additional projects that advance NTCF connectivity objectives for the North by summer 2019.

This is in addition to the government's ongoing support to address the unique infrastructure and energy challenges in Canada's Arctic and Northern Regions including more than \$1.58 billion over 12 years for the three northern territories, for infrastructure development under the Investing in Canada Plan Infrastructure Program, including \$400 million for the Arctic Energy Fund. To be eligible for federal support, projects must be prioritized by the relevant provincial or territorial government. \$84 million over five years has been allocated to build knowledge of climate change impacts and to enhance the climate resiliency of northern infrastructure design and construction.

The Canadian Northern Economic Development Agency (CanNor), works with its northern partners to help close the infrastructure gap. In the last two years, CanNor approved contributions of \$18.5 million in 39 infrastructure projects which have an overall value of \$40.7 million. For example, CanNor is funding the Kivalliq Inuit Association to study the potential to develop a hydroelectric-fibreoptic link between the province of Manitoba and the Kivalliq region of Nunavut.

Through its Connect to Innovate program, Innovation, Science and Economic Development Canada has invested nearly \$150 million to improve connectivity in the three territories and northern Quebec. Earlier this year, the government appointed the Honourable Bernadette Jordan as Minister of Rural Economic Development to lead work on increasing high-speed broadband coverage throughout the country. This commitment was reaffirmed in Budget 2019, which announced \$1.7 billion to ensure nationwide connectivity to Internet speeds of at least 50 Megabits per second (Mbps) download and 10 Mbps upload. Additional funding will also be available through other mechanisms. In particular, the Canadian Radio-television and Telecommunications Commission has indicated that up to 10% of funding from its \$750 million Broadband Fund will be made available for satellite-dependent communities in the North. The Canadian Infrastructure Bank will seek to invest \$1 billion over ten years nationally and leverage at least \$2 billion in additional private sector investments to increase broadband access for Canadians. Overall, this is the largest federal funding commitment to date for broadband. The

government is committed to working with territorial governments and Indigenous stakeholders as it implements these initiatives.

Budget 2019 provides additional investments, which may be used to help seed large-scale infrastructure investment.

RECOMMENDATION 24

Whenever there is investment in defence-related infrastructure in the Canadian Arctic, the Government of Canada should conduct an analysis of civilian needs in the surrounding area with the view to ensuring the greatest possible benefit to Northern communities from defence spending.

RESPONSE: The Government of Canada agrees with this recommendation. Where possible, the Department of National Defence and the Canadian Armed Forces (DND/CAF) make efforts to ensure infrastructure spending in the North provides tangible benefits for local communities. For example, DND/CAF is providing funding to the Government of Nunavut, through the Capital Assistance Program, to upgrade and maintain the 33km highway that links the Nanisivik Naval Facility to the Hamlet of Arctic Bay. The highway is used by both DND/CAF and local communities.

Northern communities should also benefit from defence-related infrastructure contracts in the Canadian Arctic, where possible. DND/CAF actively seeks out Indigenous-owned businesses in the North that have the relevant expertise for its defence infrastructure projects. They are key partners with DND/CAF as they hold project expertise combined with a history of the land and local knowledge.

Recent Indigenous contract examples include:

- \$60.5 million in contracts awarded to Almiq Contracting Ltd. by Defence Construction Canada for work related to the Arctic and Offshore Patrol Ship Project;
- \$43 million expended in support of four separate Inuit requirements as part of a North Warning System operations and maintenance contract; and,
- \$7.7 million awarded to the Nasittuq Corporation as part of the Inuit Benefit Plan for work on Ellesmere Island.

RECOMMENDATION 28

The Government of Canada should prepare an annual report to Parliament on the federal role and responsibilities in the Canadian Arctic, the budgetary resources that have been allocated toward relevant policy targets, and the outcomes that have been achieved from that expenditure in partnership with territorial governments and Indigenous organizations.

RESPONSE: The Government of Canada agrees in principle with this recommendation and will take it into consideration for future actions when reporting on the federal role and responsibilities in the Canadian Arctic. Currently, all federal departments and agencies are required to provide reports to Parliament on mandates, plans, priorities and allocations, as well

as related results. This includes activities in the Canadian Arctic. The Government of Canada recognizes that improved horizontal reporting would facilitate dissemination of information to parliamentarians and all Canadians, and is taking steps to support this.

DEFENCE, SECURITY AND STEWARDSHIP

RECOMMENDATION 11

The Government of Canada should upgrade the Canadian Coast Guard's icebreaking fleet so that it may continue to deliver critical programs and services to Canadians, through a process that will ensure there are no gaps in the coming years in Canada's maritime security and domain awareness, scientific research, or search and rescue capabilities.

RESPONSE: The Government of Canada is committed to ensuring safety in Canadian waters by having a fleet ready to serve on Canada's three coasts and vast inland waterways. Since 2011, the Coast Guard has received significant investments to replace vessels and helicopters and continues to work diligently on building new vessels as part of the National Shipbuilding Strategy. The Coast Guard recently accepted into service a new icebreaking vessel, the CCGS *Captain Molly Kool*, which joined the fleet for the 2019 icebreaking season. The CCGS *Jean Goodwill* and CCGS *Vincent Massey* will be available to support Coast Guard programs by 2019 and 2020 respectively.

On February 18, 2019, the Coast Guard issued a Request for Information for the potential procurement of a light icebreaker. Acquiring interim light icebreaking capacity will enable ice management and ice escort in shallower waters, including on the Great Lakes and in the St. Lawrence Seaway, while existing Coast Guard vessels undergo life extension and maintenance work. The Coast Guard's two heavy icebreakers, CCGS *Louis S. St-Laurent* and CCGS *Terry Fox*, are in good condition and are planned to be kept in service until their replacements are delivered.

The Coast Guard employs robust multi-year planning to support fleet renewal, upgrades, and modernization, and will ensure that the government has the necessary capabilities to deliver critical on-water services.

RECOMMENDATION 12

The Government of Canada should set a time-bound goal to complete its mapping, according to modern standards, of the most frequently used marine corridors in the Canadian Arctic.

RESPONSE: There are a number of unique challenges associated with Arctic hydrography which make it difficult to set a time-bound goal for completing hydrographic surveys and production of navigational charts for even the most frequently used Arctic waters; notably the remote location, large geographic area, short season and extreme conditions. Over the past few years the Canadian Hydrographic Service has been able to accelerate its work and increase the proportion of Arctic waters which have been surveyed to modern or adequate standards. As of April 2019, 31% of the most frequently used routes required for commercial shipping and

community resupply have been surveyed. By the end of the Ocean Protection Plan in 2023, it is estimated that about 40% of these most frequently used routes will be surveyed.

Canadian Hydrographic Services will work to further leverage technologies as well as key partnerships to advance and accelerate Arctic Hydrography. The Coast Guard is presently installing modern hydrographic sonars on Coast Guard icebreakers. Within the next 3 years there may be as many as 6 Coast Guard icebreakers equipped for both targeted and opportunistic surveys and similar opportunities with the Department of National Defence and other vessel operators are being sought to further increase the number of Arctic bound vessels capable of providing high quality hydrographic data. Finally, Canadian Hydrographic Services continues to assess emerging technologies including remote sensing and autonomous survey vessels which may offer additional methods to survey Arctic waters.

RECOMMENDATION 13

The Government of Canada should increase the funding available to the National Aerial Surveillance Program so that it can cover more territory more frequently in the Canadian Arctic. The federal government should also ensure that the program is able to acquire new surveillance equipment and replacement aircraft when needed.

RESPONSE: Transport Canada is the lead federal department responsible for preventing pollution from ships, and its National Aerial Surveillance Program (NASP) is the primary method by which this is achieved. In the Arctic, while pollution prevention based activities are the main driver behind the program's flight activities, every flight hour is multitasked to ensure maximum efficiency to serve Transport Canada and other government departments. Transport Canada is often the closest or sole asset near an incident in the Arctic and is tasked to respond to provide situational awareness during environmental, civil or humanitarian emergencies. Transport Canada's maritime patrol aircraft fleet is comprised of three aircraft which are strategically located to surveil all three oceans. The government concurs with the Committee on the importance to continue to deliver and expand the surveillance coverage in the Arctic. The government will continue to explore opportunities to enhance operations and acquire new state of the art maritime patrol aircraft fully equipped with remote sensing surveillance equipment and sufficient spares to address the aging fleet. The operationalization of Transport Canada's Remotely Piloted Aircraft System (RPAS) capabilities would also complement the arctic surveillance capability, and provide capabilities beyond those available in traditional fixed wing aircraft surveillance platforms.

RECOMMENDATION 14

The Government of Canada should continue to invest in new technology that can improve its awareness of sub-surface activity approaching or in the Arctic, including by working closely with the United States through NORAD.

RESPONSE: The Government of Canada agrees with this recommendation. Consistent with Canada's Defence Policy, *Strong, Secure, Engaged (SSE)*, the Government of Canada is committed to increasing the focus on the Arctic, including enhancing joint intelligence,

surveillance and reconnaissance as a defence research and development priority. Canada has identified the need to produce innovative solutions to the surveillance challenges in the North. Through the All Domain Situational Awareness (ADSA) program, which received an investment of \$133 million over five years (2015 to 2020), DND is conducting research and analysis to support the development of options for enhanced domain awareness of air, maritime surface and sub-surface approaches to Canada. Surveillance solutions explored by DND/CAF will continue to support the Government of Canada's ability to effectively defend Canada's Arctic and protect Northerners, and provide a greater whole-of-government awareness of safety and security issues, transportation and commercial activity in Canada's Arctic. The objective across the three domains (air, maritime surface and sub-surface) is to deliver assessments and advice on the performance and viability of existing and future concepts, technologies and methodologies that could contribute to improved awareness in these domains.

In addition, SSE commits to procuring new capabilities and technologies that will help improve situational awareness in the Arctic, including:

- Next generation surveillance aircraft (remotely piloted systems) to significantly expand its Joint Intelligence, Surveillance, and Reconnaissance capacity. This will enable real-time flow of information that is essential to operational success;
- Space-based systems that will enhance and improve communications throughout the Arctic; and,
- Arctic and Offshore Patrol Ships (AOPS), as part of the National Shipbuilding Strategy, to provide armed, sea-borne surveillance of Canadian Arctic waters.

RECOMMENDATION 15

The Government of Canada should review search and rescue needs on an ongoing basis and in concert with its territorial partners to determine whether air assets should be deployed in the North on either a seasonal or a full-time basis. Should a needs assessment indicate, at any point, that such a forward-deployed capability is required in the North, the government should provide additional funding to the Canadian Armed Forces (CAF) so that search and rescue services are in no way diminished in southern Canada.

RESPONSE: This recommendations complements work already under way in response to the Report of the Standing Senate Committee on Fisheries and Oceans, *"When Every Minute Counts - Maritime Search and Rescue"*. The Government's response was tabled May 3, 2019.

The Government of Canada regularly assesses its operational search and rescue capabilities across the country. The Coast Guard and its partners regularly engage with local communities regarding Canadian Arctic search and rescue requirements, through the implementation of the Coast Guard's Risk-based Analysis of Maritime Search and Rescue Delivery (RAMSARD) methodology. The process, which helps inform the best service delivery model for Canada's search and rescue areas, includes two phases of public consultations and ensures that local communities are engaged in the decision-making process. For example, under the Oceans Protection Plan and as a result of broad consultations, the Coast Guard has established a seasonal in-shore rescue boat station in Rankin Inlet, Nunavut. The station employs Inuit and

other Indigenous students to provide dedicated maritime search and rescue services in this region.

Canada regularly engages other levels of government and civilian organizations to better meet the needs of local and regional search and rescue (SAR). This includes aligning the Canadian Armed Forces response posture and pre-deploying assets to synchronize with activities that have greater potential for search and rescue incidents. The Canadian Armed Forces also regularly complements its search and rescue response with chartered civilian aircraft and helicopters, when required. Additionally, the Coast Guard works with Arctic nations through the Arctic Coast Guard Forum to share best practices for SAR in the Arctic and has participated in two live exercises focused on SAR in Arctic conditions.

To better position the CAF to respond to SAR incidents across Canada, including in our Northern and Arctic regions, *Strong, Secure, Engaged* (SSE) includes investments in a range of capabilities. For example, SSE commits to replacing the Fixed-Wing Search and Rescue aircraft. This will bolster the Royal Canadian Air Force's ability to respond to critical air search and rescue, in partnership with civilian partners. Also, with the acquisition of a fleet of Arctic and Offshore Patrol Vessels, the Royal Canadian Navy will be better positioned to support partners, including the Coast Guard, in undertaking search and rescue activities.

In addition to these capabilities, the Medium Earth Orbit Search and Rescue (MEOSAR) a space-based component of the international search and rescue system, allows the CAF and its partners to better detect and rescue people in distress.

RECOMMENDATION 16

The Government of Canada should explore the possibility of training the Canadian Rangers and Junior Rangers in the use of drones for the purposes of enhancing Canada's domain awareness in the Arctic. Should such a program prove feasible, the government should allocate new funding for the distribution, sustainment and repair of the necessary equipment, as well as the enhancement of the Canadian Armed Forces' communications infrastructure in the North.

RESPONSE:

The Government of Canada will take the recommendation to provide unmanned aerial systems (commonly referred to as 'drones') to the Canadian Rangers into consideration. We will continue to review the types of capabilities the Canadian Rangers require, but we do not have plans to provide them with unmanned aerial systems (UAS) at this time. DND/CAF balances the needs and mandate of both the Rangers and Junior Rangers to determine the type of resources they require. Currently, both programs have the resources required to achieve their respective mandates.

The Canadian Rangers are critical to effective military surveillance and play a key role in exercising Canada's sovereignty in our Northern and Arctic regions. They are a unique sub-component of the Reserve Force. Being lightly equipped is an advantage in the conduct of

their surveillance and sovereignty patrols. They are recruited for their survival skills and extensive knowledge of their local land, with which they broadly support CAF operations in northern, remote and/or isolated areas of Canada as guides and local experts on the terrain. In recognition of their important role, and in accordance with the commitment made in SSE, DND/CAF is working to increase the size, geographic footprint and effectiveness of the Canadian Rangers.

The Government of Canada does not agree to provide UAS to the Junior Canadian Rangers. The aim of the Junior Canadian Rangers Program is to provide a structured youth program to girls and boys ages 12 to 18 that live in remote and isolated areas of Canada. The program promotes traditional cultures and lifestyles through a variety of fun and rewarding activities that help youth build life skills and enhance the community in which they live.

RECOMMENDATION 17

The Government of Canada should allocate long-term funding for the replacement of the North Warning System, as part of ongoing discussions with the United States regarding the modernization of NORAD capabilities in the Arctic.

RESPONSE: The Government of Canada agrees that it is important to work with the US to determine how to best replace this important capability as part of the overall NORAD modernization. Canada's defence Policy, *Strong, Secure, Engaged (SSE)* indicates that studies are currently underway with the United States (US) to determine how best to replace this important capability. The Government of Canada will continue to collaborate with the US on the development of technologies to improve Arctic surveillance and control. Also, Canada and the US are working closely on NORAD modernization to defend against current and future threats to the continent. Both countries have a shared interest in ensuring the Arctic remains safe and stable. DND/CAF is currently leveraging the commitments made in *Strong, Secure, Engaged* to prioritize Arctic Joint Intelligence Surveillance, and Reconnaissance as a defence research and development priority. To achieve this, DND/CAF continues to work with its Partners and Allies on the development of new technologies to improve Arctic surveillance and control, including the North Warning System.

While the current North Warning System technology will require replacement, work is currently underway with the United States to seek an innovative technological solution to continental defence challenges, including early warning. For example, Canada and the United States are working closely together on the first-ever bi-national Northern Approaches Surveillance Analysis of Alternatives (NAS AoA) to study innovative technological solutions to airspace surveillance. The NAS AoA will finalize its report late 2019 or early 2020.

RECOMMENDATION 18

The Government of Canada should review the forward operating locations used by Canada's fighter jets to determine whether any infrastructure enhancements are required at the existing sites to enable an effective and sustained presence, and whether there should be any new sites in the Canadian Arctic, with the objective of advancing the line of North American defence as far out as possible.

RESPONSE: The Government of Canada agrees with this recommendation. DND/CAF will continue to review its operating locations across Canada to ensure they meet the requirements to defend against threats to the continent, including in the Arctic. DND/CAF continues to place its military assets in regions where potential threats are the greatest. In addition, Canada works closely with the United States to ensure NORAD continues to be prepared to deal with a full range of possible threats. As stated in SSE, DND/CAF will take steps to enhance the CAF ability to operate in the Arctic and adapt to a changing security environment, including by enhancing the mobility, reach and footprint of the CAF in Canada's North in order to support operations, exercises and the CAF ability to project force into the region.

RECOMMENDATION 21

The Government of Canada should review the *Remote Sensing Space Systems Act* to determine whether it has kept pace with technological developments in the remote sensing field, and whether Global Affairs Canada continues to be the most appropriate department for handling licence applications made pursuant to the Act. As part of that process, the federal government should take into account the recommendations put forward in the 2012 and 2017 independent reviews of the Act.

RESPONSE: Canada is committed to increasing capacity to better administer the *Remote Sensing Space Systems Act (RSSSA)*. This includes efforts such as: responding to the two reviews of the RSSSA; obtaining additional resources; re-engaging international regulatory counterparts for better cooperation and coordination; as well as increasing transparency.

As the RSSSA is administered with regard to national security and defence, the safety of Canadian Armed Forces, Canada's conduct of international relations, and both DND and the Canadian Space Agency (CSA) (under Innovation, Science and Economic Development) are licensees under the RSSSA, Global Affairs Canada continues to be the only department with proper mandates to administer the Act.

GEOPOLITICS

RECOMMENDATION 1

As part of deterring and defending against any threat to the members of the North Atlantic Treaty Organization, the Government of Canada should work with its partners in the North Atlantic Council to deepen the Alliance’s understanding of Russia’s military intentions in the Arctic and to consider the most appropriate and measured response.

RESPONSE: The Government of Canada believes that cooperation and collaboration should continue to define how we operate in the Arctic, including on Arctic security issues. Arctic nations have long agreed to resolve disputes peacefully and in accordance with international law. While there continues to be productive collaboration of all Arctic states on Arctic issues across several appropriate forums, given concerns on the part of some Allies over Russia’s increased military activity in the broader Arctic region, Canada, in collaboration with our NATO Allies, will continue to carefully monitor Russian military activities in the Arctic.

As part of Canada’s Defence Policy, *Strong, Secure, Engaged (SSE)*, Canada will seek opportunities to work with NATO Allies and Partners to support situational awareness and information sharing in the Arctic. To further support this initiative, Canada will bolster its surveillance and reconnaissance capabilities to better understand and effectively operate in the region. In addition, the Canadian Armed Forces will increase its participation in regional multinational exercises, and will continue to invite key Arctic and non-Arctic allies and partners to participate in Operation NANOOK, Canada’s domestic Arctic operation.

RECOMMENDATION 3

The Government of Canada should engage with the Government of China to understand their growing interest in the Arctic.

RESPONSE: The government is committed to maintaining our Arctic leadership position and to ensuring that the evolving international order in the Arctic is shaped in a manner that protects and promotes Canadian interests and values. China’s growing interest in the Arctic presents Canada with both opportunities as well as challenges, particularly with respect to strategically-sensitive infrastructure, environmental protections, and Canada’s Indigenous and Northern communities. Existing bilateral and multilateral mechanisms have enabled dialogue with China on a range of Arctic issues, including Arctic science and climate change, merchant Arctic shipping and marine policy. Canada’s diplomatic missions in China have also been engaged on Arctic issues and advocacy to raise awareness and support Canada’s positions. The government will continue to pursue productive engagement with China through these platforms and seek opportunities for dialogue on the Arctic with China where such opportunities can advance Canada’s Arctic interests.

CIRCUMPOLAR DIPLOMACY AND INDIGENOUS RIGHTS

RECOMMENDATION 2

The Government of Canada should continue to work with Russia, whenever possible, through the Arctic Council, in concert with the other member states, in order to conduct scientific and policy research and to address shared environmental, safety, transportation, and human development challenges.

RESPONSE: Despite sometimes difficult bilateral relations, cooperation with the Russian Federation related to the Arctic continues in both bilateral and multilateral forums. Canada, led by Global Affairs Canada, has been working to engage with Russian interlocutors across a wide range of political, cultural, and scientific issues, particularly through the Arctic Council. At the Arctic Council, Canada is working with other Arctic states, including Russia, and the Indigenous Permanent Participant organizations, to support sustainable development and environmental protection in the Arctic. Russia, with the largest Arctic territory and northern population base, is actively seeking to develop its Arctic resources and maritime transportation systems, and supports the Arctic Council giving more attention to economic development issues, as well as the interests of the Russian Indigenous peoples in their pursuit of human and socio-economic development, particularly related to education and language.

Apart from the Arctic Council, Canadian officials continue to engage with Russian Arctic counterparts with the aim of enhancing understanding and finding new and renewed areas of cooperation. Canada participates in key forums for engagement and dialogue, and is pursuing other activities to advance the bilateral relationship, including through academic, youth and other exchanges, information sharing, and development and sharing of best practices on issues of shared interest. Various federal government departments are engaging with Russia on Arctic issues, including in the areas of transportation, fisheries and science. Departments working on Canada's submission to the Commission on the Limits of the Continental Shelf (CLCS) have been closely engaged with their counterparts in Russia as well as the other Arctic Ocean coastal states (A5), United States, Kingdom of Denmark and Kingdom of Norway, bilaterally and at annual meetings of the A5. The Coast Guard also works with Russia and other Arctic states through the Arctic Coast Guard Forum to foster safe, secure and environmentally responsible maritime activity in the Arctic. The coast guards collaborate through live exercises and semi-annual meetings, focusing on search and rescue and environmental response.

RECOMMENDATION 4

The Government of Canada should engage with non-Arctic states that have demonstrated an interest in the Arctic to ensure that future shipping activity is safe and does not have an adverse impact on Arctic communities or the natural environment, and that such activity is conducted in accordance with Canadian policy, law and regulations applicable to the Arctic, as well as the security of Canada's Arctic.

RESPONSE: Canada welcomes navigation in its Arctic waters provided vessels comply with our rules and regulations related to safety, security and pollution prevention, and that local community and Indigenous concerns are taken into account. The Government of Canada applies a risk-based regulatory and oversight regime designed around hazards unique to the region (e.g., ice, low temperatures, high latitudes); regularly communicates with vessel owners and operators of Arctic and non-Arctic states alike in advance of and during a voyage; and takes appropriate enforcement action in the event of a contravention.

The Government of Canada also operates within various international fora dedicated to maritime affairs, providing opportunity for more direct engagement with stakeholders with a real or perceived interest in Arctic shipping. For example, at the International Maritime Organization (IMO), Canada engages with the 174 Member States on issues related to marine safety and environmental protection, including in the Arctic. Following several years of negotiations at the IMO, and through the leveraging of Canadian experience as a world leader in the oversight of Arctic shipping, the IMO's International Code for Ships Operating in Polar Waters (the Polar Code) entered into force internationally on January 1, 2017, and contains a variety of leading edge safety and pollution prevention measures

The Government of Canada also participates in regionally focused intergovernmental organizations that, although not rule-making bodies, address Arctic shipping issues. Most notable is the Arctic Council, where non-Arctic actors that have demonstrated an interest in the Arctic, such as China, Singapore and India, participate as observers. Engagement within these organizations provides valuable opportunities to bring awareness to Canada's robust Arctic shipping regulatory regime amongst these stakeholders.

RECOMMENDATION 5

The Government of Canada should continue to engage closely with the other Arctic coastal states, namely Denmark, Norway, Russia and the United States, in keeping with the United Nations Convention on the Law of the Sea and the 2008 Ilulissat Declaration, and further to recommendations emanating from the Commission on the Limits of the Continental Shelf, toward the peaceful, orderly and mutually agreed resolution of overlaps as regards Canada's extended continental shelf in the Arctic.

RESPONSE: The Government of Canada agrees with this recommendation and remains closely engaged with the United States, the Kingdom of Denmark, the Kingdom of Norway and, the Russian Federation in regard to this issue. These Arctic Ocean coastal states, known as the A5, meet annually to discuss the legal and scientific aspects of the Arctic Ocean continental shelf. Because of the delineation of the continental shelf process, A5 scientists are working together

to establish the fundamental principles behind the formation and evolution of the Arctic Ocean. On May 23, 2019, Canada filed its submission with the Commission for the Limits of the Continental Shelf regarding its continental shelf in the Arctic Ocean. Canada's continental shelf submission covers 1.2 million square kilometres of seabed and subsoil in the Arctic Ocean and includes the North Pole. All A5 countries remain committed to the peaceful and orderly resolution of overlaps using the legal framework defined in the United Nations Convention on the Law of the Sea, as stated in the 2008 Ilulissat Declaration. In 2018, Canada sent Senior Arctic Official Alison LeClaire to Ilulissat to signal continued support and participate in the 10-year Anniversary of the Ilulissat Declaration.

RECOMMENDATION 6

The Government of Canada should respect the rights of Indigenous peoples, including those articulated in the United Nations Declaration on the Rights of Indigenous Peoples, when resolving sovereignty disputes and applying the United Nations Convention on the Law of the Sea.

RESPONSE: The government takes note of Recommendation 6 and has been engaging northern Indigenous groups during the preparation of Canada's submission on the outer limits of its Arctic Ocean continental shelf as well as in relation to boundary discussions with the Kingdom of Denmark. Canada will continue to ensure that the rights of Indigenous peoples are respected when resolving boundary disputes and continental shelf overlaps in the Arctic Ocean.

RECOMMENDATION 7

The Government of Canada should provide stable and long-term funding to the Canadian Permanent Participants to the Arctic Council.

RESPONSE: Canada has advocated and worked towards increased resources for the Arctic Council Indigenous Permanent Participant organizations (PPs) since the Council's inception and has provided annual contributions to the work of the PPs with Canada-based membership – the Arctic Athabaskan Council, the Gwich'in Council International, and the Inuit Circumpolar Council. While modest gains had been made to increase or find supplementary funding to support the three PPs, including support from a number of federal government departments for specific projects or activities – until recently, there were still challenges in ensuring full and active participation of PPs at the Council. However, this changed with the significant new Budget 2019 investment of \$10M over the next five years and \$2M/year ongoing funding to enhance PP capacity to engage in the Arctic Council. This new investment will bolster the ability of the PPs to develop and advocate Arctic Indigenous policy priorities, and to actively engage in, pursue and lead initiatives within the Council context.

RECOMMENDATION 8

The next time that the Government of Canada is chair of the Arctic Council, it should co-develop the agenda and priorities for that two-year period with the Canadian Permanent Participants.

RESPONSE: Since the inception of the Arctic Council, Canada has made it a priority to work closely with the Canada-based Arctic Council Indigenous Permanent Participant organizations (PPs) in preparation for, and during, each Arctic Council Chairmanship, both Canadian chairmanships and those of the other Arctic states. This collaboration allows us to work with PPs towards the co-development of priorities and initiatives and to work in partnership to achieve those objectives. As regular practice, the government actively engages with PPs, as well as territorial and provincial governments on international Arctic policy issues and project initiatives through the Canadian Arctic Council Advisory Committee (ACAC), a domestic consultative mechanism chaired by Canada's Senior Arctic Official, and through ongoing communication and engagement efforts.

In the lead up to Canada's most recent chairmanship of the Council from 2013-2015, the government regularly and actively engaged PPs, both bilaterally and through the ACAC, to work towards the development of Canada's chairmanship program. A number of Canada's signature chairmanship initiatives were developed and advanced as a result of this engagement. As we approach the next Canadian chairmanship (2029-2031), Canada intends to continue these practices, to ensure continued partnership and collaboration with Canadian Arctic Indigenous peoples.

CLIMATE CHANGE, SCIENCE AND KNOWLEDGE

RECOMMENDATION 22

The Government of Canada should ensure climate change risks are taken into consideration as part of all federally supported infrastructure programs in the North

RESPONSE: The Government of Canada agrees and is already acting to promote the consideration of climate change risks in the design and development of infrastructure in all regions of the country, and particularly in Canada's North where the pace and scale of climate change is greatest. For example, under the \$33 billion Investing in Canada Infrastructure Program led by Infrastructure Canada, the government has introduced a new climate lens requirement and has two funding streams for climate change projects – one to improve community resilience and one to reduce greenhouse gas emissions. The \$2 billion Disaster Mitigation and Adaptation Fund also incorporates the climate lens requirement for project applicants. The \$42.5 million Climate Resilient Buildings and Core Public Infrastructure initiative funded by Infrastructure Canada and led by the National Research Council is producing new tools, guidelines and standards to update building codes with respect to climate change. The Standards Council of Canada, with support from Crown-Indigenous Relations and Northern Affairs Canada, is leading the Northern Infrastructure Initiative to address northern infrastructure vulnerability through the effective use of standards. Under the Northern

Transportation Adaptation Initiative (\$6.9 million from 2019/20 – 2021/22), Transport Canada works with academia, practitioner experts, territorial and provincial governments and other stakeholders to support research, testing, workshops and other knowledge transfer activities that enhance the capacity of northerners to make their transportation systems more resilient to climate change, and that contribute to a better understanding of infrastructure needs in the long term. These examples demonstrate the government’s commitment to ensuring that climate change risks are considered in building and rehabilitating infrastructure and that the built environment across the country is better able to withstanding the growing challenges of climate change, including in Canada’s North.

RECOMMENDATION 25

The Government of Canada should ensure that research bodies under its jurisdiction are engaging in meaningful consultations with Indigenous communities and other people who live and work in the Arctic to ensure that Canada's Arctic research agenda reflects their priorities and perspectives.

RESPONSE: To understand the needs and priorities of Northerners as well as opportunities to complement existing research activities and initiatives underway, Polar Knowledge Canada (POLAR) engaged directly with representatives from Northern and Indigenous organizations across Canada’s North to develop a Science and Technology Plan that reflects their priorities and supports research essential to understanding and adapting to climate change. POLAR continues to work closely with Indigenous organizations, such as Inuit Tapiriit Kanatami (ITK), to ensure the alignment of priorities within the agency, Indigenous partners, Northerners, and the research community at large.

CIRNAC’s Indigenous Community-based Climate Monitoring program is working with representative regional committees across the Arctic to identify funding priorities for Arctic climate change monitoring and adaptation efforts. The Regional Partnerships and Research group works with organizations established under Northern land claims and communities across the Arctic to ensure that local and regional interests help identify research needed to inform future decisions on Arctic offshore resource management. The Northern Contaminants Program requires that all funded projects (\$4.1M annually) be carried out in partnership and consultation with Northerners. Program priorities are co-developed, which further engages and empowers Northern communities, organizations and governments to lead and fully participate in Arctic research through shared decision-making.

The National Research Council of Canada (NRC) conducts applied research to address challenges in the Arctic at the request of and with the participation of Northern organizations such as Qikiqtaaluk Corporation, the Inuvialuit Regional Corporation, regional industrial partners and others. Working closely with these collaborators, NRC research supports robust infrastructure, technology development and reliable transportation throughout Canada’s North. In addition, NRC’s Industrial Research Assistance Program (IRAP) supports Northern corporations advance their innovative ideas from research and development to market.

As part of the *Strengthening Indigenous Research Capacity* initiative launched in 2018, the three federal granting agencies (CIHR, NSERC or SSHRC) held 14 regional engagement events with First Nations, Inuit, and Métis peoples to identify new models to support Indigenous research and research training. Social Sciences and Humanities Research Council of Canada's (SSHRC) Connection program also launched dedicated funding for Indigenous research and reconciliation grants, awarding 116 grants supporting mobilization and exchange of knowledge on Indigenous research and research training. A National Dialogue on Indigenous research was held in March 2019, where 300 Connection grant holders, Indigenous community members and Tri-Council representatives gathered to discuss emerging themes, including issues related to Arctic research.

In 2016, the Canadian Institutes of Health Research (CIHR), based on the advice of First Nations, Inuit, and Métis communities, implemented its Action Plan: Building a healthier future for First Nations, Inuit, and Métis peoples. CIHR also works closely with ITK to discuss their priorities and explore how CIHR can support their recently released National Inuit Strategy on Research. Moreover, research conducted under the auspices of institutions that receive funding from CIHR, NSERC or SSHRC must conform to Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, which includes a chapter for Research Involving the First Nations, Inuit and Métis Peoples of Canada, whose guidance is based on the premise that engagement with community is an integral part of ethical research involving Indigenous peoples.

RECOMMENDATION 26

The Government of Canada should support Indigenous-led initiatives that collect, record and analyze Indigenous traditional knowledge about the Arctic as part of the design, planning and execution of Arctic research.

RESPONSE: Through POLAR's grants and contribution programs, POLAR provides funding to external partners, including northern and Indigenous organizations, to support their research and knowledge mobilization projects, including projects involving Indigenous knowledge and local knowledge. In particular, the Polar Knowledge Application Program for 2020-2023 will fund projects under the Indigenous knowledge theme, which supports the application of Indigenous knowledge in northern research activities to contribute to facilitating the creation of new knowledge and supporting decision-making. Projects under this program can support use of Indigenous knowledge at any stage of the research cycle, from setting research priorities to interpreting results to sharing information and disseminating knowledge products.

CIRNAC's Indigenous Community-Based Climate Monitoring program provides \$6 million per year to support Indigenous peoples to plan and lead monitoring of self-determined indicators of climate change using both Indigenous knowledge and science. The Northern Contaminants Program strives to engage Indigenous knowledge holders throughout all project stages, and supports activities that utilize complementary scientific and Indigenous expertise to enhance knowledge of contaminants and their effects for people and the environment. As part of its Strategic Environmental Assessments in Arctic offshore regions, CIRNAC is working with land

claim organizations and regional Inuit organizations to create opportunities for communities to meaningfully contribute to the assessments, and to maintain the integrity and values embodied in the Indigenous knowledge that is collected to inform research and decision-making.

RECOMMENDATION 27

The Government of Canada should work toward the establishment of a Canadian Antarctic research program under Polar Knowledge Canada with the view to enabling substantial scientific research activity to be conducted there.

RESPONSE: The government agrees with the intent of this recommendation. Canadian researchers have been making contributions to Antarctic research for many years in the area of physical, biological, human, social and geosciences. Canadians have also been involved in technology development to facilitate and support Antarctic science and operations. Canada is a polar nation, and it is clear that what happens in the Antarctic region has lessons for, and affects the Canadian Arctic, as well as the rest of the world.