Transport & Infrastructure

8. Keeping Ports Connected

DESCRIPTION

To ensure that the Canadian economy can continue to grow, investment in infrastructure and technology related to imports, exports and advancements in shipping are necessary. Infrastructure projects and technological advancements improve efficiencies, commodity pricing and will ensure Canada remains competitive on the world stage.

For infrastructure and technology projects to materialize, all levels of government must work with Canada's largest port – the Port of Vancouver – and ports across the country, to:

- coordinate investments in digital technology to enhance block chain and supply chain visibility; and,
- prioritize the timely and efficient approvals of infrastructure projects designed to meet Canada's trade objectives related to the shipping industry.
- Canadian trade connections and capacity can deliver the competitive advantage for Canada in the years ahead, but only if Canadian port authorities are able to plan for and advance projects that will meet the country's trade objectives.

BACKGROUND

The Port of Vancouver is about the same size as the next five largest Canadian ports combined. Home to 27 major terminals, the port is able to handle the most diversified range of cargo in North America: bulk, containers, breakbulk, liquid bulk, automobiles and cruise. As Canada's gateway to over 170 trading economies around the world, the port handles \$1 of every \$3 of Canada's trade in goods outside of North America. Enabling the trade of approximately \$240 billion in goods, port activities sustain 115,300 jobs, \$7 billion in wages, and \$11.9 billion in GDP across Canada.

However, even with these impressive stats, Canada's largest port is predicted to run out of space for containerized cargo by the mid to late 2020s. Container volumes through Canada's west coast have experienced significant growth over the last decade, a phenomenon that is expected to continue in the long-term. Various infrastructure projects have been completed or are currently underway in order to improve capacity on the west coast. But that is still not enough to meet the predicted demand. Canada's best solution is Roberts Bank Terminal 2 (RBT2) – a proposed new marine container terminal in Delta, BC that is needed to ensure Canada is able to meet its trade objectives. The project recently underwent a federal environmental assessment process, and a decision on the project from the Minister of Environment and Climate Change is expected in November 2020.

It is important to note that Canada Port Authority operations are not financed by tax dollars. They receive revenues from terminal and tenant leases as well as harbour dues and fees

charged to shipping companies that call at the port. The RBT2 project does not require the use of public funds, as the project will be funded by the port authority and private investment.

The investment will be recuperated by the proceeds of the long-term lease of the terminal operator and terminal user fees.

Scheduled to be operational by 2029, Robert's Bank Terminal 2 will add a \$1.3 billion increase to the GDP and \$127 million in federal tax revenue. Robert's Bank Terminal 2 will increase container-handling capacity on Canada's west coast by 33%, equivalent to 2.4 million twenty-foot equivalent units (TEU) per year and will handle 234 container ship calls annually. This is needed to ensure Canada has the needed trading infrastructure to participate effectively and efficiently in the global economy.

The Port of Vancouver is expecting cargo to grow at the rate of 3.6% over the next 4 years with the majority of increases coming from foreign sources. This is a major boon to the economy but there are two issues that are causes for concern:

- Without adequate space for the containers, this increase will be diverted to other ports in the United States, resulting in higher prices on consumer goods in Canada.
- 2. Many international shipping lines that utilize digital technologies that are years ahead of current technology used by the Port of Vancouver will choose to go to other ports that can communicate with the new technology.

Top international shipping lines like A.P. Moller-Maersk are increasing their investment in digital technologies to improve efficiencies and sharpen competitive edges in what is an extremely capital-cost-intensive industry. The connectivity and digital efficiency of major ports and their operations is therefore becoming a critical differentiator in attracting and maintaining business from major shipping lines.

The newly updated United Nations Conference on Trade and Development liner shipping connectivity index (LSCI) shows Canada moving in the wrong direction in its rankings.

The LSCI measures container port performance to determine where countries rank within global ocean liner shipping networks based on several data streams, including the number of ships deployed to and from each country's seaports.

Canada's 2019 ranking dropped to 37th from 32nd in 2018 and is well down from its ranking of 23rd in 2006 and below smaller economies such as Colombia (34th). The United States ranks fifth overall.

Canada's competitiveness is weak and in addition to a supportive regulatory framework for the approval of infrastructure projects in shipping, it also requires large investment in supply chain visibility and block chain technology. The Vancouver Fraser Port Authority's Supply Chain Visibility Program provides better insight into the performance of the supply chain by using real-time, multi-modal information and data. This allows the port authority to identify network bottlenecks

and constraints, which in turn can inform improvements and infrastructure investment possibilities. The program will benefit Canadian exporters by optimizing the western Canadian supply chain, which will improve performance, capacity and resiliency.

In order for this program to succeed, the Federal government should require, or at the very least, incentivize, private industry to work more closely with the VFPA to facilitate development of performance metrics across supply chains, share data, develop and provide funding for technology solutions.

The activities of the Port of Vancouver terminals and tenants annually generate:

- \$24.2 billion in economic output
- \$11.9 billion in GDP
- \$7 billion in wages
- · 115,300 jobs in Canada
- \$67,900 average wage for direct job versus \$44,000 average wage in Canada
- \$1.4 billion per year in tax revenues: federal: \$860 million; provincial: \$441 million; municipal: \$129 million

Canada's west coast is the gateway to trade with Asia. Our ports are planning for and mobilizing on various projects to support continued growth, but without sufficient regulatory support, they will not be able to meet Canada's trade objectives and Canada will fall behind. The Port of Vancouver, as Canada's largest port, is leading the way in collaborating with gateway partners and is inherent to the entire country's economic success now and in the future.

RECOMMENDATIONS

- 1. Guarantee that the port infrastructure projects across the country receive support and timely investments; and,
- Work with the supply chain industry, in particular marine terminal operators, drayage companies, railways and port authorities to invest in digital technologies that allow seamless communication with the technology used by large commercial shipping companies, and
- 3. Work with Provincial/Territorial Governments to ensure that industrial land is protected so that it may be used to enhance port activity.

9. Aging Canadian Icebreakers

DESCRIPTION

The aging of Canadian icebreakers could have significant economic consequences and must be addressed. In recent years, vessels have been trapped in ice for periods longer than the Canadian Coast Guard (CCG) standard of five hours, in some cases for more than a week, due to the unavailability of icebreakers.

BACKGROUND

Every winter, more than 1,500 merchant ships of all types travel the St. Lawrence or Saguenay rivers to connect aluminum smelters, mines, refineries and other types of plants to their sources of supply or to their customers.

Since 2013, several vessels have been trapped in ice for periods longer than the CCG five-hour standard. In some cases, vessels have been trapped for more than a week due to the unavailability of icebreakers.

This is detrimental to companies and communities that expect inputs essential to their operations and livelihoods or that have committed to delivering their production to customers within contractual deadlines. For example, in recent years, a Rio Tinto Alcan plant has been less than 24 hours away from running out of alumina. If the unavailability of icebreakers forced an aluminum smelter to interrupt production, it would cost tens of millions of dollars to restart it. Similarly, in 2015, the CTMA Vacancier, the vessel that operates between the Magdalen Islands and Prince Edward Island during the winter period, was trapped in ice for three days due to a lack of icebreaker availability.

In the winter of 2019, an ice jam in the vicinity of Sorel-Tracy and Lac Saint-Pierre interrupted navigation, holding back five ships at the Port of Montreal, which could have significantly affected trade from the St. Lawrence-Great Lakes corridor.

Events like this occur almost every winter. Since 2016, all industry stakeholders have repeatedly requested that the federal government modernize its icebreaker fleet. The Canadian Coast Guard (CCG) icebreaker fleet is aging. With an average age of 37 years, the Government of Canada has already stretched their life expectancy. At least one icebreaker must now be taken out of service each year during the winter for major work. Their aging jeopardizes service availability, leading to serious economic consequences.

In the long term, the risk of reduced port accessibility and ship mobility in the gulf of St Lawrence, in its river or on the Saguenay will damage the reputation and ability to attract major international industrial investments. The risk of icebreaker unavailability could indeed lead promoters to reconsider major investments.

The Government of Canada's management of icebreaker unavailability risks appears inadequate. Although the Government of Canada has expressed an intention to build new icebreakers, this intention will not generate new vessels for another decade. In the meantime,

CCG still intends to extend the useful life of its fleet through a maintenance and refit program. According to the CCG Deputy Commissioner of Operations, "the fleet is in fact very reliable." But is it reliable enough? Given recent experience, there is reason for doubt.

The contract for building the new polar class icebreaker CCGS Diefenbaker is expected to be awarded shortly. It would be the largest icebreaker in the Coast Guard fleet and will be able to operate freely in the Arctic during the winter months. Its design and engineering have recently been completed and it is a shovel ready project as it were.

A fundamental mission of the government, with regard to economic development, is to make quality transport infrastructure available to businesses. The maritime icebreaking service is a good example of this mission, especially since it is a user-funded service.

RECOMMENDATIONS

- 1. Quickly address CCG's requirements pending the construction of new vessels by providing sufficient funding in its next budget to allow CCG to increase the availability of the all icebreaking fleets to bring the effective level of service up to standard.
- 2. Establish national preference criteria for awarding contracts to Canadian shipyards for the refit and construction of CCG icebreakers.

10. Expanded Infrastructure Development for National Economic Recovery

DESCRIPTION

Expediting major infrastructure projects presents significant opportunities for job creation, growth, and economic recovery across Canada.

BACKGROUND

State of the art, effective and reliable infrastructure is a key component of economic competitiveness. Unfortunately, Canada has not maintained appropriate investments into priority projects, resulting in a massive and expanding roster of urgent requirements.

Furthermore, as structures age their efficiency decreases and maintenance costs rise. Canadian governments have traditionally adopted an inconsistent approach to this portfolio and invested below the level needed to maintain critical physical assets. To address this deficiency, Canada requires a cooperative, national infrastructure investment strategy that includes funding models and increased private sector involvement considering the wide range of challenges and opportunities for business and communities across Canada.

On April 22, 2020 Canadian Chamber of Commerce President and CEO Perrin Beatty directed an open letter to Infrastructure and Communities Minister Catherine McKenna and Natural Resources Minister Seamus O'Regan related to infrastructure projects and economic recovery.

Support was expressed for pulling forward budgeted infrastructure funds from future years to generate economic activity and create jobs for Canadians. Investments this year and next year in the right projects will support immediate economic growth while increasing long-term productivity.

The best source for shovel-ready projects that support a competitive business environment for Canada is the National Trade Corridors Fund (NTCF) administered by Transport Canada. The NTCF was provided \$2 billion over 11 years, 1.1 percent of the funding available under the \$180 billion long-term plan. Due to the high demand and relatively low proportion of projects funded, dozens of shovel-worthy applications were unsuccessful in previous calls for proposals.

The Canadian Chamber of Commerce asked Ministers McKenna and O'Regan to work with Transport Canada and fund projects that have already applied through NTCF. In addition to these trade enabling projects, other shovel ready projects that will have both short and long-term economic benefits include those that improve Canada's digital infrastructure and strengthen energy and supply chain resiliency.

Collaboration with Canadian municipalities will also assist with the identification of urgent and deferred maintenance projects for commencement in the 2020 construction season.

The April 22, 2020 Canadian Chamber of Commerce correspondence also emphasized the avoidance of any extraneous regulations on approved projects. It is clear there is significant potential for the private sector to drive a rapid national recovery, however its ability to carry out this role is highly dependent on a supportive regulatory regime.

An April 29, 2020 article in the Financial Post by Kevin Carmichael noted that the NTCF was so popular that projects were rejected. Perhaps some were on merit but those that went unfunded simply because the cash ran out should, in theory, be ready to go with a larger allocation.

The Canadian Chamber of Commerce Roadmap to Recovery (June 2020) document also proposes bringing forward budgeted infrastructure funds from future years of the long-term infrastructure plan to recapitalize the National Trade Corridors Fund (NTCF). Trade-enabling transportation infrastructure is crucial for improving the flow of goods and people in Canada.

The Canadian Manufacturers and Exporters (CME) June 2020 document Manufacturing Our Future proposes a series of recommendations for economic recovery, including the prioritization of investment in trade and industrial infrastructure, notably transportation networks, industrial parks, and broadband internet. Investment in industrial parks, for example, support immediate plant construction and safeguard designated areas as employment lands.

On June 29, 2020, Alberta Premier Jason Kenney announced the province's Recovery Plan which included the largest ever investment in the province's infrastructure, allocating \$10 billion translating into 50,000 jobs for roads, hospitals, schools, pipelines and water projects. The three main pillars of the plan are building infrastructure to spur economic growth, continuing to diversify the economy, and creating jobs.

RECOMMENDATIONS

That the Government of Canada:

1. Collaboratively work to bring forward budgeted infrastructure funds from future years of the long-term infrastructure plan to recapitalize the National Trade Corridors Fund (NTCF).

11. Port and Major Airport Share Capitalization

DESCRIPTION

The Ministry of Finance is investigating the "share capitalization" of Canada's ports and major airports, as suggested in recommendations 9.3b and 10.3a of the 2016 Canada Transportation Act Review. This would change the current ownership structure so they are owned by private shareholders and no longer operate as not-for-profit commercial airports or quasi-commercial port authorities. Such a decision would have significant adverse effects on the transportation sector, to the detriment of Canadian consumers, businesses, and local economies.

BACKGROUND

Our critical transportation infrastructure connects businesses with opportunities around the globe and across the country. It links visitors with tourism operators and helps students and professionals pursue educational and business opportunities. Our ports and airports create hundreds of thousands of jobs, facilitate the movement of people and capital, and ensure that Canadian products get to market. Therefore, their governance is of the utmost importance to Canada's business community.

As commercial entities, these pieces of critical infrastructure have already harnessed the efficiencies that come with a privatization model. Our current ownership model is a successful "made in Canada" story that has facilitated significant sustainable growth in our transportation industry.

However, a move towards a share capitalization ownership model, regardless of short-term capital inflows, would jeopardize Canada's long-term economic competitiveness and would significantly reduce management's responsiveness to the interests of the Canadian economy, public and business community. Such a move would drive up costs, and require greater government oversight to regulate these newly minted private-sector monopolies.

We strongly urge the Federal Government to consider the negative potential impacts of share capitalization of Canada's ports and major airports, including higher costs, lower service levels, less capital investment, decreased competitiveness, and the loss of control of a key economic driver and trade facilitator.

Major Airports

Currently, non-profit airport authorities operate Canada's major airports. Their major capital investments have already been paid for by passengers, airlines, and the airport authorities. If these airports are sold, it will essentially amount to re-financing previous investment at a much higher cost in order to finance shareholder return and cost of acquisition. Our airports are already privatized, and there are no further proven economic advantages to changing directions.

Through the process of commercialization in the 1990s, Canada's airports have already reaped the benefits of privatization including; transferring capital and operating expenses from taxpayers to private operators; access to capital markets at relatively low rates of borrowing;

market discipline and increased efficiency; customer service focus; and striving for innovation. Under the current governance system, Canadian passenger and freight services have thrived and recently globally ranked 16th out of 140 in terms of quality of infrastructure.⁴¹

Profits from airports would no longer be directly invested back into the entity and instead be used to pay dividends to shareholders, who would be incentivized to maximize profit margins and shareholder returns. These for-profit entities would also face changes to their ability to borrow money and make the necessary investments in long-term infrastructure.

The Federal Government continues to collect land and infrastructure lease payments and profit from the operation of passenger screening services. Due to fees, taxes, and charges, including after-tax fuel costs, Canadians face some of the highest air-travel costs in the world, negatively impacting our economic competitiveness. In 2013, Canada ranked 136th out of 140 in terms of competitive cost structure. ⁴² Share capitalization does not offer a solution to this situation and would only exacerbate these issues, and move future decision-making outside of the public interest. ⁴³

Australia has already gone through this process with its airports and it has been found that airports collect significantly more aeronautical revenue per passenger than before their airports were share capitalized, meaning that passengers and airlines are paying more to access the airports. ⁴⁴ Despite these increases in revenues, ratings of service quality have not substantially changed. The Australian Competition and Consumer Commission (ACCC) suggests that airlines and passengers in Australia have paid up to \$1.6 billion too much for airport access due to this model. ⁴⁵ The chair of the ACCC, Rod Sims, recently claimed that while privatization often enhances efficiency and economic activity, the privatization of Australia's airports and ports was "severely damaging" to the economy. ⁴⁶

Canada Port Authorities

Established under the Canada Marine Act (1998), Canada Port Authorities facilitate Canada's trade objectives in a commercially viable way, ensuring goods and passengers are moved safely and efficiently, while protecting the environment and considering local communities. They also act as agents of the federal Crown to manage federal land, an important function of which is Aboriginal consultation and engagement as well as project and environmental reviews under Canadian Environmental Assessment Act, 2012.

⁴¹ World Economic Forum, Global Competitiveness Rankings 2015, http://reports.weforum.org/global-competitiveness-report-2015-2016/competitiveness-rankings/

⁴² World Economic Forum Index of Cost of Access http://www3.weforum.org/docs/TTCR/2013/TTCR _DataTables10_2013.pdf

⁴³ http://www.theglobeandmail.com/report-on-business/rob-commentary/the-model-is-not-broken-only-dented-the-trouble-with-canadian-airport-privatization/article33359029/

 $^{^{44}\,}https://www.accc.gov.au/system/files/2015-16\%20AMR\%20revised\%206\%20March_0.pdf$

⁴⁵ https://yow.ca/en/media-center/cta-review/accc-suggests-airport-regulation-says-flyers-pay-16b-extra-fees-due-privatisations

⁴⁶ https://www.theguardian.com/australia-news/2016/jul/27/acccs-rod-sims-says-privatisations-severely-damaging-economy

If ports were share capitalized, government would have to take on the regulatory and statutory functions currently under the responsibility of Canada Port Authorities. This would require a significant regulatory overhaul, and the overall process of privatizing such a monopoly would place a significant resource burden on the government.

Canada Port Authorities already operate in a quasi-commercial manner, and would have little to gain in terms of efficiency if they were to be privatized. Further, much of the revenue earned by port authorities is reinvested in infrastructure (in the case of Canada's largest port, the Port of Vancouver, an average of \$80 million per year). If privatized, a material proportion of that capital investment cash flow would likely be redirected to service debt and ultimately provide a financial return to the private owner.

In 2016, as part of Transportation 2030, Transport Canada launched the Ports Modernization Review, a review of Canada Port Authorities to optimize their current and future role in the transportation system as innovative assets that support inclusive growth and trade.⁴⁷ The review includes a focus on governance structures.

As Canada continues to develop its critical gateway infrastructure and tap into new markets, it is vital that the Federal Government make no decision that would jeopardize the long-term competitiveness of our ports and airports.

RECOMMENDATIONS

That the Government of Canada:

- Engage directly with stakeholders and industry experts before any further discussions regarding changes to the governance models of Canada's major transportation infrastructure;
- 2. Maintain a competitive and responsibly governed transportation industry by refraining from forced share capitalization of these assets; and
- 3. Focus government attention on improving the competitiveness of our airports and ports cost structure, including appropriate funding programs to ensure safe and secure operation of our nation's transportation infrastructure.

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⁴⁷ https://www.tc.gc.ca/eng/ports-modernization-review-discussion-paper.html

12. Transport Canada Civil Aviation: Addressing the Need to Speed up STCS & TSOS

DESCRIPTION

Transport Canada Civil Aviation (TCCA) is the Civil Aviation Directorate⁴⁸, and promotes the safety of the national air transportation system through its regulatory framework and oversight activities. As part of the regulatory framework, TCCA develops policies, guidelines, regulations, standards and educational materials to advance civil aviation safety in Canada. The issue in this policy is the delay in approvals of STCs – Supplemental Type Certificates and TSOs - Technical Standard Orders. TCCA, through oversight activities, verify that the aviation industry complies with the regulatory framework through certifications, assessments, validations, inspections and enforcement.

The issue arising is that some regions are far busier than others. Requests for approval arriving from outside Canada are handled on a first-come, first-served basis, i.e., US. Requests from within Canada must be handled within the geographic region where the company is based which files the approval request.

This has a two-pronged negative effect on Canadian companies, especially in the Pacific Region and the Ontario Region where the back-ups are lengthy. Foreign companies have an edge in the market over Canadian companies; and Canadian companies are being driven to open satellite offices in the US from which to file paperwork in order to receive approvals in a timely manner. In one example the company states that "it has moved its certifications 100% to the US at a cost of several millions of dollars due to the delays and inactions of TCCA." Another west-coast company which asked to remain anonymous is mid-planning to move partial R&D operations to the U.S., and hire there, while at the same time laying off professional technical staff in BC due to the slowness of certification and resultant impact on business.

BACKGROUND

Supplemental Type Certificates - STC

TCCA issues Type Certificates for Canadian-designed aeronautical products to certify that the product complies with the appropriate airworthiness standards. Hundreds of aviation-related companies produce products under some of the strictest controls in manufacturing today, incurring research and development (R&D) costs, high-paid staff costs and the costs of testing.

Approval certificates are a critical final step in the process. Delays in the Pacific Region have been growing for the last decade, from a variety of reasons: chronic understaffing; change in directors; lack of resources; increase in requests for approvals.

Ten years ago, the wait for paperwork was 5-6 weeks. Now, it is 12 weeks and growing. New products are vital to improve a wide range of aircraft performance and maintenance factors.

⁴⁸ https://www.tc.gc.ca/eng/civilaviation/menu.htm

Technical Standard Order - TSO

The TCCA requires that an applicant for a Canadian Technical Standard Order (CAN-TSO) design approval in respect of an appliance or a part has or shall have access to, the technical capability to conduct the design analyses and tests required to demonstrate the conformity of the appliance or part with its certification basis. ⁴⁹ Our Canadian-based aviation companies – and there are thirty in the Okanagan, more than 100 in the lower mainland, and several others throughout the province – submit application to qualify new products on a year-round basis.

In Ontario and Quebec, the numbers are much greater: 52% of Canada's aerospace industry production takes place in Quebec (\$14.4B annual sales); in Ontario there are 200+ aerospace companies, with \$6B annual economic contribution). Slow-downs in TSO and STC approvals are a country-wide issue.

Many TSO agreements are in place between TCCA other international bodies, i.e., the EASA (European Union Aviation Safety Agency) and the FAA (US)⁵⁰.

This paperwork, both TSOs and STCs, is critical to the economic well-being of Canadian-based aerospace companies, and to the growth of professional level jobs in BC. At least one Okanagan-based company has already decamped altogether to the US (Washington State, in order to remain close to BC markets); rumours also continue of companies planning to open satellite offices as far south as Arizona and California, from which to file paperwork on products researched and designed in Canada.

This is a loss for Canadian business, and adds unnecessary layers of wasted time, increased costs, doubling of regulations and tax and audit reporting, for reasons which can be resolved through TCCA regional assignment flexibility, e.g., utilizing the less-busy Atlantic Region for Pacific, Ontario & Quebec Region requests.

RECOMMENDATIONS

- Request that Technical Standard Orders and Supplemental Type Certificates be
 processed to the first regional office that has processing capability, rather than queuing
 by geographic region;
- 2. Encouraging Transport Canada Civil Aviation to bring its staffing to levels that meet regional demand to prevent the bleed-off of provincial businesses to the US and protect Canadian jobs.

⁴⁹ Canada, Aviation: Schedule V, Aeronautical Product Approvals, Canada: https://www.tc.gc.ca/eng/civilaviation/publications/tp14984-with-05-2710.htm

⁵⁰ Reciprocal Acceptance of TSOs; https://www.tc.gc.ca/en/services/aviation/aircraft-airworthiness/international-agreements-arrangements/reciprocal-acceptance-tso-easa-faa-tcca.html

13. Protecting Canada's Arctic Interests - Canada's Losing Battle

DESCRIPTION

Canada's Arctic is the future of Canada in several ways with many relying on Arctic Sovereignty and the Northwest Passage (NWP). Currently, the Panama Canal is the only viable route in North America to ship goods from east/west and vice versa. With the melting of the Arctic region, the attraction of the NWP has grown significantly as a shipping route as well as the potential for economic independence.

BACKGROUND

According to research published in the journal Nature Climate Change, the Arctic could be "functionally ice-free" by 2044. This also opens the concern of other militarized nations asserting their presence in the NWP. This concern of "the Canadian Arctic's security and safety" is highlighted in the recently released Report of the Special Senate Committee on the Arctic "Northern Lights: A Wake-Up Call for the Future of Canada" 2 and was even addressed by the US Embassy in a letter to Prime Minister Trudeau in Nov/2019 due to our lack of federal investment in our military which would include the financial support of Arctic Sovereignty

Two routes are connecting the Pacific Ocean and the Atlantic Ocean. That is, the Northeast Passage (hereinafter NEP) and the NWP (see in below). The NEP also called the Northern Sea Route (NSR), is made up of all the marginal seas of the Eurasian Arctic, such as the Chukchi, the East Siberian, the Laptev, the Kara, and the Barents Seas. The NSR makes up approximately 90% of the NEP.

The NWP runs between Greenland and Newfoundland in the Atlantic Ocean, and along the northern coast of Canada and Alaska, ending in the Bering Strait. The Bering Strait is an 85 km wide strait separating Russia and Alaska between the Arctic Ocean and the Bering Sea (part of the Pacific Ocean).

Since the year 2000, Russia has become the foremost military and shipping leader in its NSR in the circumpolar region. ⁵¹ Russia has aggressively pursued the development of enhanced Arctic gas pipelines, icebreaking freighters, and trans-shipment facilities for natural gas and LNG. These are of global economic and strategic significance. Russia is in a position of strategic military and commercial strength throughout the circumpolar area. Russia has 40 icebreakers – 4 double the size of Canada's – 6 military bases, 16 deep-water ports, and 13 airbases. ⁵² Additionally, Russia has built a new nuclear-powered icebreaker – the world's biggest and most powerful.

^{51 1.} https://www.cbc.ca/news/canada/north/ice-free-arctic-this-century-1.5370504

^{52 2.} June 2019 Northern Lights: A Wake Up Call for the Future of Canada

C:\Users\Richard\Documents\Presentations\Northern Lights.pdf

Canada, on the other hand, has done little in enhancing its ability to navigate and protect the Arctic Archipelago. Canadian Prime Ministers and federal cabinet ministers have regularly visited Canada's North, Canada has held the G-7 finance ministers meeting in Nunavut in February 2010, investing in Arctic patrol ships under The Canada First Defence Strategy, and the expansion of the Canadian Rangers to provide a military presence in remote parts of Canada. [3] The only icebreaker that can compete with the Russian fleet of icebreakers is the CCGS John G. Diefenbaker, which is expected to become operational between 2021-2022. The Canadian Government announced the National Shipbuilding Strategy in 2015, which is scheduled to end in 2042. There are no icebreakers slated to be built under the National Shipbuilding Strategy. This will leave Canada vulnerable in the Arctic.

The symbolic gestures of visiting the Arctic archipelagos, investing meagerly into the military, and the sub-par icebreakers currently deployed and planned for deployment are inadequate investments into protecting Arctic sovereignty.

RECOMMENDATIONS

- 1. As recommended by the Special Senate Committee on the Arctic implement at the very least recommendations 23 through to 25 which state:
 - 23. That the Government of Canada ensure the Canadian Arctic's security and safety and assert and protect Canada's sovereignty in the Arctic.
 - 24. That the Government of Canada, on an immediate basis, establish a robust governance regime to regulate activities in Canada's Arctic waters, including shipping corridors, and bonding and insurance requirements. Such a regulatory regime must include the active involvement and participation of Arctic Indigenous governing bodies and communities.
 - 25. That the Government of Canada enhance maritime and aerial situational awareness of the Canadian Arctic, including improving the icebreaking capacity of the Canadian Coast Guard, and equipping the Canadian Rangers' with marine capabilities.