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The National Shipbuilding Strategy: Time to Hold the Course, Not Jump Ship

Major Jesleine Baker

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The National Shipbuilding Strategy: Time to Hold the Course, Not Jump Ship

Major Jesleine Baker

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INTRODUCTION

The National Shipbuilding Strategy (NSS) is a one of a kind procurement strategy that was designed from its inception to last 30 years and beyond.¹ Signed in 2010, it represents an attempt to try something new, rather than follow the same doomed path other individual procurement projects have traveled. Traditionally major defence procurement projects have been plagued with the lack of project management expertise, political interference, regionalism, and the inability to stay within a budget or schedule. For these reasons, the last few decades have shown many cases of failed major crown projects such as the Upholder submarine acquisition, F-35 Joint Strike Fighter Program, the Maritime Helicopter Project, and the Joint Support Ship Project to name a few. The latter three of these projects were not completely abandoned but they did require a complete restart. This resulted in procurement delivery delays measured in years, and millions of dollars spent on program management fees.²

Recognizing that the Royal Canadian Navy (RCN) and the Canadian Coast Guard (CCG) needed a full fleet recapitalization encompassing up to 38 large ships and 116 smaller ships, the Government of Canada (GoC) chose an all-encompassing strategy.³ Although managing such an expansive and expensive capital procurement project has come with its challenges and risks, it has also come with big gains, especially in terms of developing a sustainable shipbuilding industry in Canada. With a projected worth of \$60 billion over 30 years, it is estimated that

¹ Canada. Public Services and Procurement Canada. "About the National Shipbuilding Strategy." Last accessed 25 April 2022. <https://www.tpsgc-pwgsc.gc.ca/app-acq/amd-dp/mersea/sncn-nss/apropos-about-eng.html>. In June 2010 the Federal Government announced the launch of the National Shipbuilding Procurement Strategy (NSPS). It has since been renamed the National Shipbuilding Strategy (NSS). For consistency NSS will be used throughout the paper.

² Tom Ring, "The National Shipbuilding Procurement Strategy: How did we get to where we are now?" Policy Update - Canadian Global Affairs Institute, March 2016, 2.

³ Martin Auger, The National Shipbuilding Procurement Strategy: A Five-Year Assessment, Library of Parliament Publication No. 2015-35-E, 15 June 2015, 2.

between 2012 and 2019 the NSS has contributed \$13 billion to Canada's gross domestic product (GDP) and has created 12, 000 jobs annually.⁴

It is normal and healthy to be critical and debate whether or not billions of taxpayer dollars are being spent wisely through the NSS. This paper argues that 10 years into a 30-year strategy is not the time to jump ship. It is time, however, to take a critical view, assess the weaknesses, commit to corrective action plans, and renew the commitment to the long-term goals. Canadians deserve open and honest communication with decisions being made based on facts. Time and money spent now on corrective action will pay dividends in the future and will keep the strategy on track to realize the long-term goal of building and supporting a sustainable Canadian marine industry.

Before assessing the NSS it is first helpful to provide some context and background to why the NSS was created. This will give some insight when discussing the four performance measurements that were chosen by the government to assess the NSS over the 30-year lifespan of the project. Useful performance measures are timeliness of project execution, delivery of vessels within approved budgets, shipyard productivity, and economic benefits. To date, the government has tended to focus solely on economic benefits most likely because that is the most positive measure to report. However, as the NSS project matures, the government must be more proactive in reporting on all four performance measures. This expanded assessment helps to address legitimate concerns, especially relating to budgets and schedules. This in turn promotes

⁴ Martin Auger, *The National Shipbuilding Procurement Strategy: A Five-Year Assessment...*, 2: Canada. Public Services and Procurement Canada. "About the National Shipbuilding Strategy." Last accessed 25 April 2022. <https://www.tpsgc-pwgsc.gc.ca/app-acq/amd-dp/mersea/sncn-nss/apropos-about-eng.html>. \$60 Billion is noted in Auger's report as the estimated overall cost of the NSS in 2015. The overall cost of the NSS has continued to rise and is further discussed in the budget section of this paper.

better communication and displays the full transparency that the taxpayers deserve, and require, as the Government continues to support this vital national investment.

NATIONAL SHIPBUILDING STRATEGY BACKGROUNDER

BOOM AND BUST CYCLE

Before getting too in-depth with an analysis of the NSS, it is helpful to take a moment to review its original purpose, intent, and general political and economic conditions that were present during the time of the negotiations. The last time Canada invested in the procurement and construction of major warships was the Halifax Class Frigate project, completed in 1994, and the Kingston Class Maritime Coastal Defence Vessels project which was completed in 1997. Before this, the Iroquois class destroyers were built in the 1970s.⁵ The Canadian Coast Guard (CCG) also ran its own shipbuilding projects during the same periods. This resulted in both the Navy and the CCG now requiring a complete re-build of their fleets at the same time.⁶ Although the original intent for the Halifax Class Frigate program was to create a center of excellence to garner international business, this did not come to fruition.⁷ The flurry of individual naval procurement projects undertaken in both the 1970s and the 1990s, with long periods of inactivity between, represents the boom and bust cycle that to date the Canadian government has yet to avoid. One of the main appeals to introducing the NSS was “to change this shipbuilding dynamic and implement a more strategic procurement process that will also sustain the Canadian shipbuilding industry.”⁸

⁵ Martin Auger, *The National Shipbuilding Procurement Strategy: A Five-Year Assessment...*, 1.

⁶ Tom Ring, “The National Shipbuilding Procurement Strategy: How did we get to where we are now?” Policy Update - Canadian Global Affairs Institute, March 2016, 2.

⁷ R.A. Forbes, “Government Shipbuilding: The Chase for the Elusive Economic Benefit.” Joint Command and Staff Programme, Canadian Forces College, 2014, 6.

⁸ Martin Auger, *The National Shipbuilding Procurement Strategy: A Five-Year Assessment...*, 1.

Two key events happened in the early 2000s that also greatly influenced the decision to implement a joint approach to large ship procurement. The first was the GoC decision to mandate that all federal vessels would be built in Canada.⁹ Despite the arguments that it may be cheaper to build offshore, it is unpalatable for a sitting government to justify spending upwards of 30 billion dollars of taxpayers' money overseas. It is much more popular politically to tout the economic benefits of re-investing in the Canadian shipbuilding industry to create a stable defence industrial base and create a variety of long-term skilled labour jobs.¹⁰

The second key event was the failed attempt to procure the Joint Support Ships (JSS) in 2008. This led to a total review of the Canadian shipbuilding industry to validate its current readiness levels and ability to support the government's increasingly aggressive shipbuilding objectives. The bidding process was halted after none of the bids fell within the budget of the JSS project: "When the process was stopped almost \$50 million had been spent, and there was nothing to show for it."¹¹ This highlighted two significant issues that led the GoC to the conclusion that more collaboration was required between the Department of National Defence (DND) and industry to facilitate a successful procurement. The first was lack of experience that DND had in developing realistic statement of requirements that could be met within the designated budget. The second is realization that significant investment into the shipbuilding industry was required to meet the growing demand. It became clear that a strategic partnership between shipbuilders and the government would be necessary to build up capacity and facilitate the modernization of the shipbuilding industry.¹²

⁹ Tom Ring, "The National Shipbuilding Procurement Strategy: How did we get to where we are now?"..., 2.

¹⁰ Canada. Public Services and Procurement Canada. Canada's National Shipbuilding Strategy 2020 Annual Report. Ottawa: PSPC, 2020, 2. rapport-report-2020-eng.pdf (tpsgc-pwgsc.gc.ca)

¹¹ Ibid.

¹² Ibid.

NSS OBJECTIVES AND SHIPYARD SELECTION PROCESS

According to the 2021 Auditor General Report on the NSS, “the strategy’s objectives are to renew the federal fleet in a timely and affordable manner, create and support a sustainable marine sector in Canada and generate economic benefits for Canada.”¹³ Although those original objectives remained constant over the decade, politicians have strategically chosen to emphasize the latter two objectives over the first. As an example, when the NSS was first announced the Minister of Public Works and Government Services, Rona Ambrose was quoted as saying “Our government made the strategic and historic decision to support the Canadian marine industry, to revitalize Canadian shipyards and to build ships for the navy and coast guard right here in Canada.”¹⁴ Although changing the order of these objectives may be a minute detail it does indicate the actual order of priorities from the perspective of the government which is job creation, economic benefits, and then procurement of equipment.¹⁵

Three key aspects set the NSS apart from any other major procurement project. First was the use of a special Deputy Minister’s Governance Committee (DMGC) which “ensured that the selection process would be free from any political interference.”¹⁶ The second was the signing of the Umbrella Agreements which outlined the principles and general intent between each of the winning shipyards and the GoC.¹⁷ The third was the use of an impartial third party consultant. First Marine International (FMI) was tasked to audit the shipyards and make an assessment of

¹³ Reports of the Auditor General of Canada to the Parliament of Canada, Report 2: National Shipbuilding Strategy, 2021, 1. Report 2—National Shipbuilding Strategy (oag-bvg.gc.ca)

¹⁴L. Payton, "Halifax, B.C. yards win shipbuilding work," Last modified 20 October 2011. <http://www.cbc.ca/m/touch/news/story/1.1000979>.

¹⁵ J. Craig, Stone,; Global Affairs Institute, Canadian. The Demise of the National Shipbuilding Strategy: Is it Inevitable?. Ottawa, ON, CA: Canadian Global Affairs Institute, 2019, 2.

¹⁶ Tom Ring, “The National Shipbuilding Procurement Strategy: How did we get to where we are now?”...,5.

¹⁷ Ibid, 7.

their ability to reach a “Target State” meaning their ability to achieve efficient shipbuilding practices comparable to some of the top shipyards in the world.¹⁸

After a 15-month consultation process, with oversight from DMGC, and with the full participation of Canada’s shipbuilding industry, it was accepted that two shipyards would be selected to build the large ships defined as over 1,000 tonnes. The work would be split between one shipyard building combat vessels and the other building the non-combat vessels. Small vessel construction would also be put up for a competitive bidding process but the two selected shipyards for constructing the large vessels were ineligible for competing on the small vessel contracts.¹⁹ The intention was to put Canada on the right path to developing a sustainable long-term shipbuilding plan to provide stability for the marine industry across Canada. However, getting to this point did come without challenges. One of the DMGCs greatest governance successes was the implementation of a robust and agile dispute resolution mechanism. This was used during the Request for Proposal phase and “allowed for transparent, nimble decision-making, not a quality normally associated with Government procurements.”²⁰ This in part contributed to a compressed Request For Proposal (RFP) and selection process that took place in a record time of 15 months.

Overall, the selection process “was hailed as one of the most successful procurement processes in Canadian history.”²¹ One of the key aspects coming out of the Umbrella Agreements was that these shipyards were responsible for making their own investments to

¹⁸ Tom Ring, “The National Shipbuilding Procurement Strategy: How did we get to where we are now?...”, 4.

¹⁹ Reports of the Auditor General of Canada to the Parliament of Canada, Report 2: National Shipbuilding Strategy, 2021, 2. “In 2012, Public Services and Procurement Canada entered into umbrella agreements with 2 competitively selected shipyards to build large vessels: Vancouver Shipyards Co Ltd in Vancouver for non-combat vessels and Irving Shipbuilding Inc. in Halifax for combat vessels. At the time, the 2 shipyards were assigned to build up to 28 large vessels of different types. Additional ships were expected to be added later.”

²⁰ Tom Ring, “The National Shipbuilding Procurement Strategy...”, 5.

²¹ Ibid, 3.

upgrade their facilities. This was in exchange for the long-term commitment of building up to 38 large vessels over 30 years. In the past with the project-by-project process, the cost of facility upgrades was ultimately borne by the taxpayer as it was included in the individual project costs funded by the government. This exchange saved taxpayers more than \$500 million. Shipyards now fund their own upgrades through profits earned throughout the program. From the perspective of the shipbuilding industry, now that there is guaranteed steady work over the next 30 years, the selected shipyards can invest in long-term labour force development, build up supply chain expertise and advance technology and innovation to increase efficiencies in the overall shipbuilding processes.²² With this strategic partnership, investment by the shipyards into their own infrastructure, and labour force development, it is feasible that these Canadian shipyards will be able to competitively compete for international contracts in the future.

The third aspect of what sets the NSS apart from all others is the extensive use of the independent third party consultant company, FMI. FMI helped determine which Canadian shipyards had potential to become a leading shipbuilder in terms of productivity over the long term. This was an expertise that Canada did not have due to the boom and bust cycle of our traditional shipbuilding industry. An impartial perspective, void of domestic contention, was key. FMI provided a detailed benchmark of the shipyards' capabilities and developed a framework to address the deficiencies found. They worked with the individual shipyards to develop action plans and then provided evaluations to assess overall potential to reach productivity levels equivalent to the top 25% of leading shipbuilders in the world. Overall this added to the integrity

²² Tom Ring, "The National Shipbuilding Procurement Strategy...", 8.

of the selection process, validated the proposed course of action, and reduced the number of disputes between bidders and the GoC.²³

ADDING A THIRD SHIPYARD

More recently, the GoC chose to open up the NSS to a third shipyard. This announcement came in August 2019 immediately preceding a fall Federal election. Understandably, some critics are calling the move politically motivated.²⁴ When Prime Minister Justin Trudeau made the announcement he emphasized that the intent was to increase the investment in the CCG by building 6 new program icebreakers and that a third shipyard would attract more talent and good jobs to Canadian communities.²⁵ This sparked a statement from Vancouver Shipyard (VSY) expressing their disappointment in the decision and a warning that this has the potential to return Canadian shipbuilding to the unfavourable boom and bust cycle.²⁶ Despite this concern, the GoC has pre-qualified Chantier Davie shipyard in Quebec making them eligible to compete in the medium icebreaker contract. An Umbrella Agreement was expected in 2021 but there has been no GoC announcement to date.²⁷

Two major issues were raised regarding this decision to add a third shipyard into the NSS. The first is the validity of the competitive process. Heddle Shipyards in Ontario submitted a complaint to the Canadian International Trade Tribunal upon release of the Invitation to Qualify (ITQ). The complaint was eventually dismissed. A condition of the ITQ was for the

²³ Tom Ring, National Shipbuilding Strategy..., 5.

²⁴ J. Craig, Stone,; Global Affairs Institute, Canadian. The Demise of the National Shipbuilding Strategy: Is it Inevitable?. Ottawa, ON, CA: Canadian Global Affairs Institute, 2019, 3.

²⁵ Canada. Public Services and Procurement Canada. Canada's National Shipbuilding Strategy 2020 Annual Report. Ottawa: PSPC, 2020, 8. rapport-report-2020-eng.pdf (tpsgc-pwgsc.gc.ca)

²⁶ J. Craig, Stone,; Global Affairs Institute, Canadian. The Demise of the National Shipbuilding Strategy...,5.

²⁷ Canada. Public Services and Procurement Canada. Canada's National Shipbuilding Strategy 2020 Annual Report...,10.

competing shipyard to have a contract, or recent experience, in building ships more than 1,000 tonnes. This effectively meant that the only shipyard that could qualify was the Davie Shipyard. The GoC refused to change the requirements bringing in to question the true motives.²⁸ Did the GoC intend for a full and transparent competitive process or is adding a third shipyard just about creating jobs in Quebec?

It is unclear what has changed within the NSS to warrant adding a third shipyard. No long-term study has been conducted to see how this will impact the possible loss of economic benefits to VSY, the original shipyard tasked with building all the non-combat ships.²⁹ It does not seem like VSY was given the opportunity to submit a plan or proposal for potentially delivering on this new requirement while also still delivering the existing ships on order.³⁰ However, this would have been a particularly ambitious plan considering VSY has not reached a “Target State” which is further discussed in the shipyard productivity section of this paper.

There is a fine balance between ensuring the recapitalization of the federal marine fleets is done promptly and building a sustainable long-term shipbuilding industry. Time will tell if the decision to add a third shipyard only results in increasing the capacity to build ships at a faster pace. Or in the long term, has it set the conditions for the dreaded boom and bust cycle? All that being said the Canadian shipbuilding industry has come a long way in the last 10 years. The following sections will take a deeper dive into the performance measures of the NSS and assess if the current shipyards meet NSS objectives.

²⁸ J. Craig, Stone, *The Demise of the National Shipbuilding Strategy...*, 6.

²⁹ Ibid.

³⁰ Mack, Ian, “A Third NSS Shipyard.” *Canadian Global Affairs Institute* (October 2019), 3.

TIMELINESS OF PROJECT EXECUTION

The first performance measurement relating to the NSS is the timeliness of project execution. The 2021 Auditor General Report on the NSS focused attention on assessing whether or not the NSS was on track to meeting the strategy's first objective of renewing the federal fleet in a timely and affordable manner. As per most complex procurement projects, the government is required to balance often conflicting goals of receiving the best value for money while also building a sustainable marine industry that generates long-term economic growth. Overall, the audit found that the NSS was not meeting its scheduled milestones. Any further delays in ship deliveries would pose a significant risk for operational gaps. It is reasonable to anticipate that several vessels will be retired before replacement ships are delivered.³¹ This is of much concern to the RCN and CCG who are actively proposing mitigation measures to help bridge the capability gaps. The greater concern is the persistent nature of shipbuilding delays. In terms of scheduling, the first ship in the class take longer to build. The Auditor General's report noted that even those schedules were optimistic. This can be attributed to the lack of experience in the shipbuilding industry at the time these schedules were developed. Two factors contribute to initial scheduling delays. First was the challenges of design development followed by the production delays of the first ship. This led to delivery timelines needing to be adjusted for future ships.³² Thus, "the delivery schedules were getting longer" not shorter.³³ A detailed review of the delivery schedules, and the delays by each ship type, can be found in the 2021 Auditor General Report. The Arctic Offshore Patrol Ships (AOPS) are a prime example of cascading delays. In

³¹ Reports of the Auditor General of Canada to the Parliament of Canada, Report 2: National Shipbuilding Strategy, 2021, 3.

³² Ibid, 7.

³³ Ibid.

summary, the first AOPS was scheduled to be delivered in June 2019, but was instead delivered 13 months later in July 2020. The second AOPS was scheduled to be delivered in April 2020, but was delivered 15 months later in July 2021. Each of the third to sixth AOPS are noted to be delayed on average 16 months.³⁴ It can therefore be concluded that the NSS is not receiving a passing mark in the performance measurement of timeliness of project execution.

Not meeting the projected ship delivery dates is certainly a negative trend that needs addressing but the solution can be complex. Shipyards need to improve the reliability of production schedules and government officials need to improve the oversight of such timelines.³⁵ This also confirms the other finding of the audit that neither shipyard has achieved a “Target State” within the projected schedule of the Umbrella Agreements. This is further discussed in the shipyard productivity section.

DELIVERY OF VESSELS WITHIN APPROVED BUDGETS

A main criticism of the NSS is the inability to provide accurate cost estimates coupled with the challenges of the GoC to clearly communicate the cost estimates to the public.³⁶ Understandably a sitting government can be hesitant to share an early cost estimate ultimately because “the first number communicated...is the one that everyone remembers and measures the government’s performance against.”³⁷ On one hand, an early cost estimate is required to provide full transparency and an opportunity for discussion as part of the democratic process, but on the

³⁴ Reports of the Auditor General of Canada to the Parliament of Canada, Report 2: National Shipbuilding Strategy, 2021, 8.

³⁵ Ibid, 11.

³⁶ Ian Mack, “A Basic Primer on Naval Shipbuilding.” Canadian Global Affairs Institute (February 2018), 2.

³⁷ Ibid, 3.

other hand, if budgets are set too early it leaves the project susceptible to inflation, schedule delays, and changing requirements.³⁸

There are also challenges in the development of cost estimates that are transparent and can be compared to those developed in other nations. Various nations have different standards as to the detail of what is or is not included in a cost estimate. Commodore (ret) Eric Lerhe breaks down the differences and proposes that before critics suggest that building ships abroad would be cheaper, one must conduct an ‘apple to apple’ comparison. This should be done by using a standard cost reporting metric such as the one outlined in NATO’s Ship Costing manual.³⁹ After comparing data from the Canadian Patrol Frigate, and similar US and Australia’s recent shipbuilding programs, it is clear using a common cost reporting system with the available costing information is challenging. NATO’s ship costing criteria establish three categories: “sail-away cost”, “program acquisition costs”, and “life cycle cost”. If one wants to compare the cost of building a ship to determine what country can do it more efficiently, or at the lowest cost, then the “sail-away cost” should be the metric used. “The “sail-away” cost – is the cost to purchase a single ship, plus a small portion of program management (but not program management team salaries) test and trials, initial onboard spares, tools, and fuel.”⁴⁰ It is important to note that the cost of the ship’s design and development and the extra cost to build the first ship are not included in the sail-away cost. These costs would fall into program acquisition expenses. Another difference Lerhe notes when analyzing program acquisition costs and comparing them to other western nation programs is that Canada is the only one that includes the salaries and

³⁸ Ian Mack, “A Basic Primer on Naval Shipbuilding.” Canadian Global Affairs Institute (February 2018), 3.

³⁹ Eric Lerhe, “Fleet Replacement and the ‘Build at Home’ Premium: Is it too Expensive to Build Warships in Canada?” Vimy Paper, No. 32 (July 2016): 40, 1.

⁴⁰ Eric Lerhe, “Fleet Replacement and the ‘Build at Home’ Premium...”,4.

pensions of the project management team in the calculations. Sales tax is also added on the ships and forms part of the cost estimate.⁴¹ His review concludes that “Canada is paying no more than a 10 percent premium for its ships base-lined against the United States, compared to Australia’s 30 to 40 percent premium.”⁴²

Thus, when time is taken to analyze the data and clearly explain the criteria and assumptions used, one can conclude that building ships in Canada is the right choice that sees the most benefit for the Canadian economy. A definite threat to the future of shipbuilding in Canada is the GoC’s inability to communicate these cost benefits in such a way that puts Canadian taxpayers at ease rather than cause doubt and mistrust. The same concept applies when updating individual project costs. This has typically occurred once the design process for a particular class of ship has been completed. The government has traditionally been reactive rather than proactive in explaining why costs have gone up since the original estimate provided in 2010. In summary, the budget for the JSS has gone from \$2.6 billion to \$4.1 billion, AOPS has gone from \$3.5 billion to \$4.3 billion and the Canadian Surface Combatant (CSC) has gone from \$26.2 billion to \$56-60 billion.⁴³ Without the proper context, one could understandably be alarmed by the steep rise in cost estimates of building ships in Canada. As a counterargument to the critique that the overall NSS project costs have more than doubled since 2010, one must take into account that the project costs have been revised and influenced by the Treasury Board introducing more accurate costing approaches as well as government officials becoming more experienced in developing cost estimates. This progress in more accurate costing models should be encouraged

⁴¹ Eric Lerhe, “Fleet Replacement and the ‘Build at Home’ Premium...”, 24.

⁴² Ibid, 1.

⁴³ The 2013 cost estimates are found in: Martin Auger, *The National Shipbuilding Procurement Strategy: A Five-Year Assessment...*, 14; The 2021 cost estimates are found in: Canada. Public Services and Procurement Canada. “About the National Shipbuilding Strategy.” Last modified 28 June 2021. <https://www.tpsgc-pwgsc.gc.ca/app-acq/amd-dp/mersea/sncn-nss/apropos-about-eng.html>

and not seen as a failure in estimating project costs.⁴⁴ Estimates of the individual shipbuilding costs should certainly be debated but also needs to be weighed against the overall benefit to the Canadian economy as a whole.

Notwithstanding the issues with cost estimates, it is still important to deliver vessels within approved budgets. Since none of the current shipbuilding projects have been completed it is hard to assess whether or not this first round of ships will meet budget targets. However, the government is highly motivated to stay within the budget. Options to achieve this may include reducing the number of ships and/or changing certain requirements to stay within budget. It was noted in the 2013 Auditor General Report that budget caps were set very early in the procurement process and this could result in a reduced number of ships or capabilities.⁴⁵ Both of these options have been exercised during the design phases of the JSS and AOPS projects. For example, the original number of ships for the JSS project was three now reduced to two. The top speed for the AOPS was reduced in order to lower the cost and remain within budget.⁴⁶ It is yet to be determined if there will be similar sacrifices made to the CSC project. Debate on whether capabilities should be modified to stay within a budget that was set before fully completing the design phase continues as a heated topic of discussion between all stakeholders within the NSS.⁴⁷

Overall, when it comes to the performance measure of delivering ships within approved budgets, it does seem within the realm of possibility if only focused on that one criterion. The

⁴⁴ Howie Smith, "National Shipbuilding Strategy: Not Perfect, Not Broken." Canadian Naval Review, vol 13:4 (2018), 29.

⁴⁵ Canada. Report of the Auditor General of Canada, Chapter 3 National Shipbuilding Procurement Strategy, Fall 2013, 19. [rappor-repor-2020-eng.pdf \(tps-gc-pwgsc.gc.ca\)](https://www.tpsgc-pwgsc.gc.ca/rappor-repor-2020-eng.pdf)

⁴⁶ Ibid, 20.

⁴⁷ Dunne, Tim and Wood, Ian. National Shipbuilding Procurement Strategy: Charting the Course, Maritime Security Occasional Paper No. 17, Center for Foreign Policy Studies, Dalhousie University, 2014, 6.

government should continue a steady course on providing the oversight and governance necessary to manage the shipbuilding projects within a set budget but also improve its communication and transparency when faced with the difficult decisions between cost and capability tradeoffs. This will ensure mutual understanding and support unity in decision making while effectively distributing 30 billion dollars of taxpayer money.

SHIPYARD PRODUCTIVITY

Although the Umbrella Agreements signed in 2012 for each of the main shipyards did not set a specific date to achieve the “Target State”, the agreed upon expectation was that the non-combat shipyard would have 3 years and the combat shipyard would have 6 years to achieve the “Target State”.⁴⁸ These deadlines have since passed, but the 2021 Auditor General Report did find that the Government is taking active steps to help correct issues by having a third party consultant conduct shipyard productivity audits. Such an audit was conducted for VSY in 2018. These results and the follow-on corrective action plan are still being reviewed. A second audit for Irving Shipbuilding Incorporated (ISI) was launched in February 2022 along with a request from ISI to extend its deadline to achieve a “Target State” for four additional years.⁴⁹ This is a marked improvement from the Auditor General’s Annual Report of 2017, which made no mention of reporting on shipyard productivity.⁵⁰ Although the results of the productivity audits have not been made public to date, at least there are now indications that the Government is attempting to measure it.

⁴⁸ Reports of the Auditor General of Canada to the Parliament of Canada, Report 2: National Shipbuilding Strategy, 2021, 13.

⁴⁹ Ibid.

⁵⁰ Dave Perry, “How is the National Shipbuilding Strategy Going?” Canadian Naval Review, vol 13:4 (2018), 36.

Another weakness noted in the 2021 audit concerned schedule management practices. The two shipbuilding contracts currently active during the audit found that the government consistently identified risks pertaining to the unreliable production schedules the shipyards were providing. The contracts require that shipyards “provide detailed production schedules to government officials on various aspects and stages of projects and to update these schedules regularly.”⁵¹ Instead, the audit found that the production schedules were not amended regularly especially when it came to the ultimate milestone of ship delivery dates. Ship delivery dates often remained firm even as critical milestones were missed. Delivery dates only were amended as those dates approached and it became blatantly obvious that the project would not be able to meet the delivery deadline. Another common complaint from the perspective of government officials was that the “schedules were too general and underestimated the time needed to accomplish the different tasks.”⁵² It is clear that the integrated scheduling tools used by the shipyards still need time to mature to the point they can be reliable and used for proper oversight by governance committees. Open and honest communication regarding production delays through an accurate scheduling tool significantly improves government officials’ ability to support the informed and nimble decision making that Canadians expect.

The final risk to shipyard productivity highlighted in the 2020 Annual Report published by Public Works and Procurement Canada (PWPC) is human resources (HR). “There is a current shortage of experienced white and blue-collar labour in the shipbuilding industry.”⁵³ This labour shortage is also contributing to the capacity of the two main shipyards to achieve “Target State”.

⁵¹ Reports of the Auditor General of Canada to the Parliament of Canada, Report 2: National Shipbuilding Strategy, 2021, 9.

⁵² Ibid, 11.

⁵³ Canada. Public Services and Procurement Canada. Canada’s National Shipbuilding Strategy 2020 Annual Report. Ottawa: PSPC, 2020, 23. rapport-report-2020-eng.pdf (tpsgc-pwgsc.gc.ca)

The stakeholders of the NSS have acknowledged the HR capacity limitations and are actively engaged in various initiatives to improve attraction and retention, workforce development, and foster a strong community within the marine industry.⁵⁴ The challenges with HR capacity do bring into question the decision to add a third shipyard. If the marine industry is already taxed with skilled labour shortages, it does not seem like a good time to increase production at a third shipyard. If the marine industry is going to survive in the long term with three main shipyards then a coordinated national strategy to develop and distribute skilled labour in the marine industry will need more attention.⁵⁵ Alternatively, perhaps it is best to stay the course, and focus on achieving a “Target State” with the first two shipyards before complicating the issue with a third shipyard.

In response to the 2021 audit findings, the GoC is working to address the weaknesses in schedule management and shipbuilding productivity by turning to a third party consultant. In relative terms, the Canadian Shipbuilding industry is still very new and, understandably, delays could happen in achieving the “Target State”. It must be considered that just 10 years ago “Canada’s shipyards were outdated and did not have easy access to equipment, supply lines, and skilled workers.”⁵⁶ All these challenges impacted the shipyard’s ability to reach production efficiencies, but it is not helpful to lay blame at this time. It is the time to strengthen the strategic partnership between shipbuilders and the government to help address deficiencies still present. Government officials need to stay firm on holding the shipyards accountable for aggressively implementing the action plans provided by the third-party consultant. This in turn promotes

⁵⁴ Ibid.

⁵⁵ “Lessons from the National Shipbuilding Procurement Strategy.” *Defence Deconstructed*, Canadian Global Affairs Institute, 28 March 2019. Lessons from the National Shipbuilding Procurement Strategy - Canadian Global Affairs Institute (cgai.ca)

⁵⁶ Edward Lundquist. "Canada's National Shipbuilding Strategy: It's Not just about Building Ships, it's about Building an Industry." *Naval Forces* 40, no. 5 (2019): 18.

continual improvement of the shipbuilding industry. A failure to do so can result in the overall strategic failure of realizing the key NSS objectives.

ECONOMIC BENEFITS

In the cost estimate section of the paper, it was discussed that Canada was paying no more than a 10% premium to build ships in Canada. This analysis was purely done from a fiscal perspective and did not take into account the economic benefits that include job creation and other economic spinoffs. Public Services and Procurement Canada produced a report in 2017 titled Value for Canada – The Cost Versus Benefit to Canadians of the National Shipbuilding Strategy. It compares three different factors, economic benefit, fiscal benefit, and cost competitiveness, to assess the real value for Canada. Although predicting the long-term future costs and benefits of such a complex project over 30 years requires several assumptions, this report uses a wide range of professional experts with credible sources to validate the assumptions. The conclusions to support building ships in Canada are that for every 1 billion spent, 0.8 billion to 1.3 billion more is added to the Canadian economy, and creates approximately 8,000 person-years of employment. Overall when using an all-encompassing analysis of several factors, it is concluded that it is 13% cheaper to build in Canada. In addition, after taking into account the tax revenues, that number jumps to the 29%-42% range.⁵⁷

The NSS continues to deliver on the objectives of sustaining a strong and viable Canadian marine industry, that provides economic benefits for Canadians by creating prosperity in communities across the country. The Industrial and Technological Benefits Policy combined

⁵⁷ Canada. Public Services and Procurement Canada. “Value for Canada – The Cost Versus Benefit to Canadians of the National Shipbuilding Strategy.” May 2017. 4-6. <https://www.pwc.com/ca/en/risk-opportunity/publications/value-for-canada-the-cost-versus-benefit-to-canadians-of-the-national-shipbuilding-strategy.pdf>

with the National Shipbuilding Strategy Value Proposition has been fundamental in supporting the achievement of these objectives. “Under these policies, shipyards and their major suppliers are required to undertake business activities in Canada equal to the value of their contracts.”⁵⁸ Both major shipyards have invested in Canadian supplier development opportunities. As an example, \$523 million was spent in 2020 resulting in the establishment of over 53 new Canadian firms in support of the Canadian Shipbuilding industry. Shipyards have also invested annually in community college welding and metal trade programs in response to the ever growing demand for these skilled tradespeople.⁵⁹ The decision to build ships in Canada has clearly boosted the marine industry and regional economies to a certain extent. With 10 years into a 30-year journey, there are strong signals that Canadian Shipbuilding has a future as long as the Government stays true to the NSS’s long-term objectives.

CONCLUSION

Just over a decade has passed since the inception of the most expensive and ambitious procurement project the government has ever taken on. It can be a challenging endeavor to measure overall performance against the lofty objectives of recapitalization of the RCN and CCG fleets while also rebuilding a floundering marine industry. Out of the four performance measures: timeliness of project execution, delivery of vessels within approved budgets, shipyard productivity, and economic benefits, only one, economic benefits, could receive a passing grade at this point in time. This is not to say the money and effort spent so far within the NSS is being wasted. It does mean that government officials need to continue to leverage the experience gained so far and re-invest in oversight initiatives to help the selected shipyards reach their

⁵⁸ Canada. Public Services and Procurement Canada. Canada’s National Shipbuilding Strategy 2020 Annual Report. Ottawa: PSPC, 2020, 15. [rapport-report-2020-eng.pdf \(tpsgc-pwgsc.gc.ca\)](#)

⁵⁹ Ibid, 13.

“Target States” and deliver ships on time and on budget. Open and honest communication from the government is key to continued public support. No one could have predicted the world changing events of the Covid 19 pandemic and the Russian/Ukrainian conflict that has made it all the more important for Canada to invest in its national shipbuilding industry and supply chain management systems. These world destabilizing events have highlighted the ever increasing need to deliver these important assets to the RCN and CCG. While a healthy debate on the cost of the NSS is important, 10 years into a 30 year strategy is not the time to jump ship. Continued investment into this critical capability of a strong and sustainable shipbuilding industry is required to ensure Canadian Sovereignty and to protect Canadian interests at home and abroad.

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