Dollars and Sense: The First Decade of the NSS

Dave Perry

The 10-year anniversary of the National Shipbuilding Strategy (NSS) is a good time to take stock of the strategy. How have the objectives of rebuilding the shipbuilding and marine sector, and recapitalizing the federal fleets fared so far? How has the strategy changed and how does the future look?

On the industrial and economic front, it is evident that the objectives of the strategy are being realized. The latest iteration of the Statistics Canada/Innovation Science and Economic Development Canada defence industry survey reports an increase of the marine sector's sales of 42% between 2014 and 2016.[1] This was led by a 156% increase in the shipbuilding and platform systems component, a 15% increase in maintenance, repair and overhaul, and a 7% increase in mission and simulation systems.[2] Over that same period, employment in the sector grew by nearly 1,400 employees, with all of that growth coming from Canadian-owned companies. Through the end of 2018 (the last year for which data is available), the two NSS shipyards had accrued Industrial Regional Benefits obligations totalling $5 billion, a good proxy for the value of the committed work to date.[3] To this point, the economic aspects are those most cited as accomplishments in the strategy's annual reports.

In terms of delivering capability, there are formally three pillars to the strategy – large vessel construction, small vessel construction, and maintenance, repair and overhaul – although few people recognize all of these pillars, at least equally. On the maintenance, repair and overhaul pillar, it is difficult to gauge what impact the strategy has had, as its impacts are at best indirect. The approach on this work has effectively been unchanged since 2010, as pre-NSS procurement practices are used, with no restrictions on which shipyards are eligible to win work. For a number of years the amount of activity in this area exceeded that of the large construction pillars and remains high today. In the summer of 2019 alone, contracts worth a total of $1.5 billion, with options for up to $7.5 billion in total value, for the support of the *Halifax*-class frigates were awarded to Victoria Shipyards, Irving Shipbuilding (ISI) and Davie.[4] In August 2018, a contract was awarded to Davie for three interim icebreakers for the Canadian Coast Guard (CCG) for $610 million, which involved refitting foreign-built icebreakers in Quebec.[5] One of these, CCGS *Molly Kool*, has already been delivered. Interestingly, while the interim icebreaking project is listed as an NSS project on the government's website, the Interim Auxiliary Oiler Replenishment project, MV *Asterix*, which entered service in winter 2018, is deemed "outside of the NSS."[6]

When it comes to construction of vessels under 1,000 tonnes, work is proceeding apace. The impact of the strategy here too is difficult to assess as the only meaningful change to this activity since 2010 is that Seaspan and Irving are not able to win any of the work. At present, projects are underway to build: four large naval tugs for the RCN; steel barges for the Canadian Army; life boats, coastal research, hydrographic survey, channel survey and sounding vessels for the CCG; and coastal patrol boats for the RCMP.[7]

Large ship construction, vessels greater than 1,000 tonnes, is the clear focus of the NSS, and its *raison d'être*. In the first decade, the first two of the Offshore Fisheries Science Vessels have been built by Seaspan in Vancouver and handed over to the CCG. The construction of the first Joint Support Ship (JSS) began in the summer of 2018 with the start of the 'early block build,' which is construction of roughly the middle third of the vessel, pending a finalized and approved design and build contract for the entire ship. Construction of the Offshore Oceanographic Science vessel has been rescheduled to occur after the first JSS is built.

For the combat package, the first Arctic and Offshore Patrol Ship (AOPS), the future HMCS *Harry deWolf*, is built, and has completed sea trials, but the handover to the RCN

*HMCS **Montreal** enters Halifax Graving Dock to begin a 53-week Docking Work Period. Maintenance and refit is an oft-overlooked component of the National Shipbuilding Strategy.*

Credit: Timothy Choi

*The large naval tug **Glendale** shown here in October 2018. As part of the National Shipbuilding Strategy, its replacement has been ordered from Ocean Group in Quebec, one of the smaller Canadian shipyards.*

has been delayed. As of the time of writing, the second AOPS, the future HMCS *Margaret Brooke*, is in the water and three more of the six AOPS being built for the RCN are under construction. Two additional AOPS will be built for the CCG after the RCN ships are finished. Finally, the Canadian Surface Combatant, by far the most significant project in the NSS, had a preferred bidder identified in October 2018, and a contract for the design signed in February 2019. Following the signing of that contract, the government, ISI and Lockheed Martin Canada launched a process called 'requirements reconciliation' to evaluate the proposal from Lockheed Martin Canada and make final determinations about the exact capabilities that would go into the ship. Although the government has made no statement about this activity, industry members have stated publicly that the formal activity of requirements reconciliation was completed in 2019.

The year 2019 was a seminal year for the NSS. Without explicitly saying so, the government of Justin Trudeau launched a major reform of the NSS. In May 2019, it announced the construction of 18 new vessels under the strategy. In addition to the two CCG AOPS, Seaspan will build 16 Multi-Purpose Vessels. The project for these ships will, if actually executed the way it was outlined, provide Seaspan its first long-run build of a commonly designed ship. This contrasts to the other ships in the non-combat package, with builds of three, two or one vessels apiece. The choppy nature of the non-combat package has been highly problematic, placing major demands on the design and engineering workforce and shipyard management to work through multiple projects, with multiple contracts apiece, with two different government clients (i.e., the RCN and CCG). A series of 16 ships will provide a long 'runway' for the shipyard, particularly if the similarities between the Multi-Purpose Vessels are genuinely high.

The fate of the Polar Icebreaker, part of the original non-combat package of work awarded to Seaspan was, however, put into limbo. The NSS website (which as of April 2020 was last updated in November 2019) states that the shipyard to build the icebreaker is "to be determined."[8] This foreshadowed the move in August 2019 to add a third shipyard to the NSS, with that new shipyard being designated to build six program icebreakers for the CCG. With this announcement, and the addition of the Multi-Purpose Vessels, the government fulfilled a major portion of the original intent of the strategy which was to replace *all* major CCG ships. At the same time, the move also fundamentally alters to the premise of the strategy. By adding a third yard, which will be Davie in Levis, Quebec, Canada has moved away from having two dedicated, predetermined sources of supply for combat and non-combat ships.

The announcement of the third yard stated that Davie will join Irving and Seaspan as a 'strategic partner' in the context of the six program icebreakers, thus adding capacity to the NSS. But it is unclear what the possible scope of work for Davie will be beyond those icebreakers. The

Credit: Davie Shipbuilding

*The medium icebreaker CCGS **Henry Larsen** undergoes maintenance at Davie Shipbuilding in Quebec. The Trudeau government's decision to include medium icebreakers and have them built at Davie as part of the NSS marks a significant change to the original NSPS arrangement.*

Credit: Alan Sim, Wikimedia

*CCGS **Sir Wilfrid Laurier** in the Arctic as it participates in the search to locate the Franklin expedition ships in August 2014. **Laurier** is one of six **Martha Black**-class vessels likely to be replaced by the 16 Multi-Purpose Vessels now to be built by Seaspan.*

original NSS premise was that Irving and Seaspan would be the default shipyards for RCN and CCG construction going forward. That it is now in question.

Similarly, another premise surrounding the NSS, that it would eliminate the boom-and-bust dynamics in Canadian shipbuilding, has also been altered. Ultimately, busts in Canadian shipbuilding were never going to be fully eliminated, as the production in the two shipyards was always going to experience a dip at some point. Eliminating periods of bust would require some combination of continuous Canadian demand, or work from other commercial entities or foreign governments when domestic demand subsides. So long as government orders were finite, the NSS was always going to face a degree of bust at some point, at least with respect to work for Canada. The initial staff work that went into the strategy had actually assessed that there was only enough work for a single shipyard based on the estimated number of labour hours that would be needed. In opting to split the work between two shipyards, the government of Stephen Harper shortened the anticipated boom period, and shortened it even further by not approving and funding a full fleet renewal for the CCG.

The Trudeau government's addition of a third yard, and approval of both Multi-Purpose Vessels and icebreakers, has altered the boom-and-bust dynamics still further. Seaspan has officially secured more work following the announcement of the 16 Multi-Purpose Vessels than it had originally when it won the non-combat package. But it is no longer the sole strategic source of supply for CCG ships over 1,000 tonnes, which is a significant shift. Further, since the Polar Icebreaker was removed from Seaspan's order book, but not given to Davie along with the other icebreakers, that suggests that the government is considering further breaking up the large construction work beyond the now three NSS shipyards, possibly even sending the work offshore.

As the shipbuilding announcements came just prior to the 2019 federal election, it is impossible to ignore the politics of opening up the NSS to include Quebec-based Davie. But despite the political considerations involving Davie, the uncertainty regarding the Polar Icebreaker makes it clear that other considerations, particularly adding capacity, were important elements of the Trudeau NSS reform. When the strategy was originally launched, it was understood that the CCG and RCN would need to wait for some of their ships to be delivered, as they had to be built sequentially. But as the strategy unfolded, and projects were delayed, the wait times on the different projects have all increased. The Trudeau NSS reforms may have imperilled the possibility of sustained new shipbuilding work into the future, but they have provided additional capacity which could help reduce the time it takes to recapitalize Canada's maritime fleets.

Actually achieving that, though, is uncertain. The government has stated it intends to have Davie go through the same First Marine International benchmarking and upgrading process as both Seaspan and Irving did during the initial NSS process. If that occurs, it will be years before Davie is in a position to start construction on the icebreakers, unless it can start work while undertaking a facility redesign. Further, the government struggled to manage all of the large construction NSS projects even prior to the addition of the third yard, the Multi-Purpose Vessels, the CCG AOPS and the program icebreakers. How will the government adjust to adding a third shipyard and three new projects to its existing workload?

A decade into the NSS, we've seen concrete economic results, the first large ships have been delivered to the CCG, the RCN is close to receiving its first AOPS, and much additional maintenance on ships large and small has been done. Ten years in, though, the Trudeau government announced a significant, if understated, reform to the NSS that conveys dissatisfaction with the pace of capability delivery. As we look ahead to the second decade, it remains to be seen if the Trudeau reforms can improve the delivery of ships without imperilling the long-term economic benefits which are already being realized.

Notes

1. The surveys are a recent, valuable creation, which unfortunately means that a longer time comparison is not possible with the same level of fidelity.
2. Government of Canada, "State of Canada's Defence Industry 2018," 2018.
3. Public Services and Procurement Canada (PSPC), "Economic Benefits for Canadians: Canada's National Shipbuilding Strategy: 2018 Annual Report," 2018.
4. PSPC, "News Release: Halifax-class Frigates: Maintaining Canada's Federal Fleet of Combat Vessels," 16 July 2019.
5. PSPC, "News Release: Government of Canada Awards Contract to Enhance Canadian Coast Guard Icebreaking Capability, Securing Middle Class Jobs in Quebec," 10 August 2018.
6. PSPC, "Shipbuilding Projects to Equip the Royal Canadian Navy and the Canadian Coast Guard," updated 13 November 2019.
7. PSPC, "Small Vessel Shipbuilding Projects," updated 13 November 2019.
8. PSPC, "Polar Icebreaker," updated 13 November 2019.

Dave Perry is Vice-President of the Canadian Global Affairs Institute and host of the Defence Deconstructed Podcast.