

NATIONAL SHIPBUILDING STRATEGY

FEBRUARY 2012 - DECEMBER 2015

STATUS REPORT

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THE STATE OF CANADA'S FLEET

Through the Royal Canadian Navy and the Canadian Coast Guard, the Government of Canada maintains two sizeable fleets of vessels. The Royal Canadian Navy is a highly adaptable and flexible force that plays a key role in ensuring Canada's sovereignty and protecting the country's interests at home and abroad. Its fleet consists of 12 Canadian-built Halifax-class multi-role patrol frigates, four Victoria-class long range patrol submarines, 12 Kingston-class maritime coastal defence vessels, one Iroquois-class destroyer, and eight Orca-class vessels.

The Canadian Coast Guard, responsible for Maritime Search and Rescue, environmental response for all ship-based spills, icebreaking in both the St. Lawrence Seaway and the Arctic, and maintaining the largest and safest navigation system in the world, is the sole operator of the Government of Canada's civilian fleet. The fleet of 117 vessels includes icebreakers, security patrol ships, science vessels, multi-tasked ships, and search and rescue cutters.

To remain effective and able to fulfill their important responsibilities, both organizations require new vessels and are in the midst of comprehensive fleet modernizations.

WHERE WE WERE

Canada is a maritime nation with the longest coastline in the world. A viable shipbuilding and ship repair industry is in Canada's national interests. But Canada's shipbuilding industry had shrunk since the mid-1990s because of lack of sustained, substantial work. As a result, Canadian companies had lost much of their capabilities to support the Navy's and the Coast Guard's shipbuilding requirements. Compared to those in other countries, Canada's shipyards were outdated and did not have the required equipment, supply lines, and skilled workers. One-off procurements proved to be both inefficient and unaffordable.

In 2010, the government announced the National Shipbuilding Strategy (NSS), formerly known as the National Shipbuilding Procurement Strategy, which focuses on three distinctive pillars: large vessel construction; small vessel construction; and vessel repair, refit and maintenance. The strategy aims to equip the Royal Canadian Navy and the Canadian Coast Guard with needed vessels and to support the Canadian economy by building them in Canada.

This will be achieved by developing a long-term shipbuilding plan rather than operating on a project-by-project basis. This approach allows the government and the shipyards to invest in the marine sector, build and maintain expertise, and create and sustain employment.

In February 2012, Canada signed long-term agreements, also referred to as "umbrella agreements", with the two shipyards selected to build large vessels. These two shipyards, Irving Shipbuilding Inc. (Halifax Shipyard), in Halifax and Seaspan's

Vancouver Shipyards Co. Ltd. (Vancouver Shipyards), in North Vancouver, were selected following a competitive process.

The umbrella agreements are the foundation of the strategic relationships to eliminate cycles of boom and bust in federal ship procurement and, therefore, provide predictability for the entire marine industry. Since the umbrella agreements were signed, the Government of Canada has negotiated with and awarded a number of contracts to the shipyards.

SUCSESSES

Since the strategy was announced and the umbrella agreements were signed, notable achievements have been realized in both large vessel shipyards.

The Halifax and Vancouver shipyards modernized their infrastructures and both have vessels under construction. Together, they invested more than \$500 million in their facilities, at no cost to the Government of Canada, to create the capacity needed to build Canada's vessels more efficiently.

The Government of Canada, with the support of a third party expert, monitors progress to ensure that the shipyards have the technology and processes to rank among the top 25% of the most productive shipyards in the world.

HALIFAX SHIPYARD

Since being selected as Canada's strategic source of supply of combat vessels, Halifax Shipyard has:

- completed its \$350 million shipyard modernization project;
- hired more than 250 new employees, recalled 325 skilled workers and trained more than 500;
- partnered with universities and colleges across Canada to train future workers and increase opportunities for women and minorities; and
- committed \$6 million in investments in the greater marine industry.

In 2016, Halifax Shipyard will build on its progress from last year. Construction of the future HMCS *Harry DeWolf*, the first Arctic Offshore Patrol Ship, began on time in September 2015. The shipyard will begin cutting steel on the second vessel this year.

VANCOUVER SHIPYARDS

Vancouver Shipyards, selected as the government's shipbuilder of non-combat vessels, has:

- completed its privately-funded \$170 million shipyard modernization project;
- erected "Big Blue" a 300-tonne permanent gantry (bridge-shaped) crane that is the largest of its kind in Canada;
- employed 290 tradespeople, 275 full-time employees and 25 trades apprentices;
- partnered with First Nations joint-venture companies; and
- engaged First Nations companies to perform 25% of the modernization work by.

In 2016, Vancouver Shipyards will continue to work on building the Canadian Coast Guard's Offshore Fisheries Science Vessels. By the end of 2015, construction is underway for the Offshore Fisheries Science Vessel.

CHALLENGES

While the strategy has made progress, success has been overshadowed by several challenges and growing pains.

Decision making has not been as effective as possible. After years of inactivity in the shipbuilding industry, expert advice needed to guide decision-makers was lacking within the government, and, in fact, within the country. In addition, the involvement of multiple departments created complexities with respect to responsibilities and accountabilities.

The number of government employees dedicated to shipbuilding had been reduced since the last large vessels—Canada's fleet of Halifax-class multi-role patrol frigates—were delivered in the mid-1990s. Not only were government shipbuilding teams too small, they also lacked sufficient expertise to deliver on such a complex, long-term endeavour.

Budgets were set in the last decade using unstandardized approaches. In addition, figures were never updated to reflect: inflation, significant changes in exchange rates, or material costs. This meant that projects appeared to be vastly over-budget when actual contracts are signed.

Despite the multi-billion dollar value of the strategy, no formalized comprehensive mechanisms were in place to measure progress and results. This gap meant that the government would not be able to reliably determine if shipbuilding investments were achieving the strategy's objectives.

And finally, communications with Canadians were insufficient. Information on the cost and timelines of various builds was not regularly updated, and the inherent complexities of procurement, reinvigorating the marine sector and ship construction were left unexplained.

GENERATING ECONOMIC BENEFITS FOR CANADA

In addition to renewing Canada's fleet, the strategy is contributing to the country's economy.

BENEFITS ACROSS CANADA

The economic benefits of the National Shipbuilding Strategy have touched regions and sectors across the country. Between 2012 and 2015, 492 Canadian suppliers received \$1.3 billion in contracts. Of this amount, \$355 million have been awarded to small and medium-sized enterprises, and \$21 million to Indigenous suppliers. In terms of economic impact, the strategy's large vessel component alone will contribute nearly \$4.4 billion of GDP and create or maintain up to 5,500 jobs per year between 2012 and 2022¹.

The following information shows the geographic distribution of contracts awarded by the government to the Canadian marine industry.

CONTRACTS AWARDED BY THE GOVERNMENT TO THE CANADIAN MARINE INDUSTRY				
Between February 2012 and December 2015				
	LARGE VESSELS	SMALL VESSELS	REPAIR, REFIT AND MAINTENANCE PROJECTS	LEASE
BRITISH COLUMBIA	\$672,159,270	\$27,812,272	\$65,629,012	
WESTERN CANADA		\$1,765,262	\$25,873,572	
ONTARIO		\$62,973,512	\$66,333,467	
QUEBEC		\$52,648,896	\$57,033,248	\$587,000,000
ATLANTIC CANADA	\$2,557,954,492	\$17,111,810	\$185,389,178	

THE STRATEGY'S SOCIO-ECONOMIC BENEFITS

Two Government of Canada policies—the Industrial and Regional Benefits Policy and the Industrial and Technological Benefits Policy—ensure that Canadian industry benefits from Canada's defence and security purchases.

Under the Industrial and Regional Benefits policy, Irving Shipbuilding and Seaspan's Vancouver Shipyards, together with their major suppliers, must undertake business activities in Canada valued at 100 % of the contract awarded by the Government of Canada. These investments involve work performed in Canada by Canadians to build the vessels under contract. They also include high-value investments to support the growth of other sectors of the Canadian economy.

¹ Source: Innovation, Science and Economic Development Economic Modeling based on Statistics Canada Input Output economic impact multipliers, 2016. Numbers based on Large Ships contracts to date; will grow as new ones are signed.

To learn more about the progress of all Industrial and Regional Benefits Policy and Industrial and Technological Benefits Policy obligations, including National Shipbuilding Strategy contracts, please visit: www.ic.gc.ca/itb

VALUE PROPOSITION

The strategy's Value Proposition obligates Irving Shipbuilding and Seaspan's Vancouver Shipyards to invest a value equal to 0.5% of strategy contracts to benefit the domestic marine industry over the long term. The investments will contribute to three priority areas—human resources development, technology investment, and industrial development—helping to strengthen and grow Canada's greater marine industry.

To date, the shipyards' contracts have generated \$15 million in obligations under the strategy's Value Proposition.

The strategy's Value Proposition obligations are incremental to each shipyard's Industrial and Regional Benefits Policy obligations.

SHIPBUILDING PROJECTS TO EQUIP THE ROYAL CANADIAN NAVY AND THE CANADIAN COAST GUARD

LARGE VESSELS

ARCTIC OFFSHORE PATROL SHIPS

The Arctic Offshore Patrol Ships will conduct armed sea-borne surveillance in Canada's waters, including in the Arctic. They will enhance the government's ability to assert Canadian sovereignty and provide surveillance and support to other government departments.

- Project status: Build phase. Build Contract awarded in January 2015
- Number of vessels to be built: 6
- Built at: Halifax Shipyard
- Built for: Royal Canadian Navy
- Project budget²: Set in 2007, approximately \$3.5 billion (updated in 2014)
- Build contract value: \$2.3 billion
- First vessel to be delivered: 2018
- Progress: As at December 31, 2015 construction of the first vessel was approximately 4 weeks behind schedule on a 178 week program to deliver the first vessel, which represents a 2.25% delay. The project is on budget and delivery of the first vessel is scheduled for 2018.

OFFSHORE FISHERIES SCIENCE VESSELS

The Offshore Fisheries Science Vessels will provide an important platform from which scientific research and ecosystem-based management can be performed. These floating laboratories will contribute to Canada's stewardship of fishery and ocean resources. These vessels will replace the aging CCGS *Teleost*, CCGS *Alfred Needler* and CCGS *W.E. Ricker* on Canada's west and east coasts.

- Project status: Build phase. Build contract signed in June 2015
- Number of vessels to be built: 3
- Built at: Vancouver Shipyards
- Built for: Canadian Coast Guard
- Project budget: Set in 2007, approximately \$687 million (updated in 2015)
- Build contract value: \$466 million
- First vessel to be delivered: 2017
- Progress: As at December 31, 2015, the shipyard was approximately 13 weeks behind on a 93-week construction schedule for the first OFSV, which represents a 14% delay. The project is on budget and delivery of the first vessel is expected in 2017.

² The project budgets include project management, design and engineering, spares, training and other costs to put the vessels into operation, as well as the construction of the ships.

OFFSHORE OCEANOGRAPHIC SCIENCE VESSEL

The Offshore Oceanographic Science Vessel will be multi-task capable of oceanographic, fishery, geological, and hydrographic survey missions. It will contribute directly to our understanding of the oceans and the impacts of climate change. It will be outfitted for scientific research on ocean currents and on the seabed. This vessel will replace the CCGS *Hudson* currently operating on Canada's east coast.

- Project status: Definition phase. Construction engineering contract signed in November 2015.
- Number of vessels to be built: 1
- Built at: Vancouver Shipyards
- Project budget: Set in 2007, under review
- Build contract to be awarded: 2017
- Delivery date: 2018-19
- Progress: The design and engineering contract was awarded in November 2015 and work is underway to finalize the design to a production-ready state.

JOINT SUPPORT SHIPS

The Joint Support Ships will increase the range and endurance of naval task groups, permitting them to remain at sea for significant periods of time without returning to port for replenishment. They will also provide a home base for helicopter maintenance and operation, a limited sealift capability and support to operations ashore. They will replace the Royal Canadian Navy's retired Protecteur-class auxiliary oiler replenishment vessels.

- Project status: Definition phase. Long lead items contract signed in December 2015
- Number of vessels to be built: 2
- Built at: Vancouver Shipyards
- Built for: Royal Canadian Navy
- Project budget: Set in 2008, under review
- Build contract to be awarded: 2017
- First vessel to be delivered: 2020
- Progress: The initial engineering work is proceeding as planned. The long lead items contract was awarded in December 2015. The design and engineering contract to refine the design to a production-ready state is on track to be awarded in the summer of 2016 with a build contract at the end of 2017.

CANADIAN SURFACE COMBATANT

The Canadian Surface Combatant fleet will be capable of meeting multiple threats in both open oceans and complex coastal environments ensuring that Canada continues to monitor and defend its waters. This fleet will replace the Royal Canadian Navy's Iroquois-class destroyers and the Halifax-class frigates.

- Project status: Definition phase. Definition support contract signed in July 2015
- Number of vessels to be built: Up to 15
- Built at: Halifax Shipyard
- Built for: Royal Canadian Navy
- Project budget: Set in 2008, under review
- Build contract to be awarded: 2021
- Progress: Twelve companies have been prequalified to participate in the procurement process. An opportunity to reduce technical risk and to start construction faster has been identified.

POLAR ICEBREAKER

The Polar Icebreaker will be Canada's largest and most capable icebreaker, and among the most powerful conventional icebreakers in the world. The flagship of Canadian Arctic presence, it will significantly enhance Canada's ability to maintain on-water capability in the Arctic on a year-round basis. It will be able to consistently operate farther north, in more difficult ice conditions, and for a longer period of time each year than is currently the case. It will replace the Canadian Coast Guard's largest and most capable icebreaker, the CCGS *Louis S. St-Laurent*. The new Polar Icebreaker will also be able to accommodate two medium-lift helicopters and will have cargo-carrying capacity.

- Project status: Definition phase. Ancillary contract signed in August 2012
- Number of vessels to be built: 1
- Built at: Vancouver Shipyards
- Built for: Canadian Coast Guard
- Project budget: Set in 2008, under review
- Build contract to be awarded: 2018
- Delivery date: 2021-22
- Progress: Will be built after the Joint Support Ships. The Canadian Coast Guard is taking the necessary measures to keep the CCGS *Louis S. St-Laurent* in service until the Polar Icebreaker is delivered. The design and engineering contract for the Polar Icebreaker is planned to begin in 2017.

OTHER ACTIVITIES UNDER THE STRATEGY

In addition to large vessel construction, the strategy also includes small vessel construction and vessel repair, refit and maintenance.

SMALL VESSELS

For small vessel construction, Canada is proceeding through competitive project-by-project procurements among Canadian shipyards. Halifax Shipyard and Vancouver Shipyards, and their affiliated companies, are not eligible to bid on small vessel contracts to ensure broader work distribution. Since February 2012, other Canadian companies have benefitted from small vessel and boat construction work resulting in more than \$162 million in contracts.

REPAIR, REFIT, AND MAINTENANCE PROJECTS

Ship repair, refit and maintenance requirements are competed through publicly announced requests for proposals. Seaway Marine, Chantier Davie and St. John's Dockyard are among the many shipyards that have benefitted from \$400 million of repair and refit work for the Canadian Coast Guard and Royal Canadian Navy.

INTERIM REQUIREMENTS

INTERIM AUXILIARY OIL REPLENISHMENT SERVICES

Canada's National Shipbuilding Strategy is a long-term plan to renew the fleets of the Royal Canadian Navy and the Canadian Coast Guard. Canada has selected two centres of excellence, Irving Shipbuilding's Halifax Shipyards and Vancouver Shipyards, to build its large combat and non-combat vessels.

Smaller vessel construction is available for competitive procurements among Canadian shipyards other than the two selected for large ship construction. This approach allows for the greatest distribution of benefits under National Shipbuilding Strategy.

While the strategy is about building ships in Canada, there are occasionally other government contracts with the Marine Industry to address interim requirements. For example, in 2015 Canada awarded a contract to Project Resolve Inc to provide the Navy with an at-sea oil replenishment capability on an urgent and interim basis until the Joint Support Ships, to be built by Vancouver Shipyards, are operational. This \$587M contract involves the conversion of an existing containership into an Auxiliary Oiler Replenishment vessel. This conversion work is taking place at Chantier Davie in Lévis, Quebec and is on track to commence service delivery in fall of 2017.

SOURCES

INFORMATION PROVIDED BY:

- ✓ Canadian Coast Guard -- <https://www.canada.ca/en/canadian-coast-guard>

- ✓ Industry, Science, and Economic Development Canada -- <https://www.canada.ca/en/innovation-science-economic-development>

- ✓ Department of National Defence -- <https://www.canada.ca/en/department-national-defence>

- ✓ Public Services and Procurement Canada -- <https://www.canada.ca/en/public-services-procurement>

- ✓ Irving Shipbuilding -- <http://www.shipsforcanada.ca>

- ✓ Seaspan's Vancouver Shipyards -- <http://www.seaspan.com/vancouver-shipyards>