

# National Shipbuilding Procurement Strategy

by Tim Dunne

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## Exploring Canada's NSPS

Dalhousie University's day-long conference: *The National Shipbuilding Procurement Strategy – Charting the Course*, made it abundantly clear that Canada needed to rejuvenate its shipbuilding industry to reverse its headlong thrust into irrelevance.



Sept 2014 – HMCS Toronto leads a fleet of NATO ships through the Black Sea while conducting a training exercise during Operation Reassurance. (Photo: Sgt Matthew McGregor, Canadian Forces Combat Camera)

Conducted in June by the university's Centre for Foreign Policy Studies (CFPS), the workshop brought together representatives of the government, industrial and academic communities to explore the risks and realities of the National Shipbuilding Procurement Strategy (NSPS). Presentations focused on the Joint Support Ship (JSS), the Arctic Offshore Patrol Ships (AOPS), and the Canadian Surface Combatant (CSC).

Clearly, with the world's longest coastline and bounded by three oceans, Canada requires maritime protection to prevent smuggling, illegal fishing, trafficking (drugs, contraband and human) and pollution. Search and rescue services, as well as scientific research are also key considerations. Federal fleets also act to meet international commitments and protect our interests abroad. As such, the NSPS becomes a key factor in Canada's defence strategy.

According to the NSPS, the Royal Canadian Navy is slated to receive dozens of new ships over the next 20 years. Projects include the building of new specialty and patrol vessels plus replacing the current aging fleets – in particular, replenishment ships, the frigates and destroyers.

The CFPS conference included an array of knowledgeable speakers to present and participate in no-holds-barred discussions surrounding the strategic relationships developing with Irving and Seaspan shipyards as they prepare to build a series of ships to a maximum contract value of \$36 billion.

On the East coast, Halifax's Irving Shipbuilding will build the combat vessels package – consisting of 6-8 AOPS and up to 15 Surface Combatants.

Looking West, Seaspan's Vancouver Shipyards will build up to 17 state-of-the-art non-combat vessels – consisting of Joint Support Ships for the Navy, plus oceanographic and fisheries science vessels, a Polar Icebreaker, Offshore Patrol Vessels, and Medium Endurance Multi-Tasked Vessels for the Coast Guard.

Another \$2 billion project is identified for smaller vessels, and is to be competed among Canada's smaller yards.

### **Arctic Offshore Patrol Ships**

The AOPS project budget of \$3.1 billion will include the ships and infrastructure, such as jetty infrastructure in Esquimalt (BC), Halifax (NS), and Nanisivik (NU).

Comparing the distance from Nova Scotia to the United Kingdom (Halifax to London is 2,700 nautical miles) with that of Halifax to Nanisivik (2,800 nm) helps to illustrate the monumental operating area these ships will be responsible for. On the Pacific side, a voyage from Esquimalt to Tokyo is shorter than the 4,200 nm from CFB Esquimalt to Nanisivik.

In addition to distances, the Canadian Arctic presents a number of logistical challenges. Rear-Admiral David Gardam, in his previous capacity as Commander of Maritime Forces Atlantic, told *FrontLine* that it is easier to operate in Afghanistan than in the Arctic because “there is almost no infrastructure” in the Far North. The supply chain becomes a critical consideration for essential materials such as food and fuel.

The vessels, a new class of ship for the Canadian Navy, has just been named the Harry DeWolf-class. They will accommodate the new Cyclone maritime patrol helicopter, with a hangar and haul-down system flight deck. The standard crew size will be 39 to 40 (up to a maximum of 80, contingent on the nature of the mission).

Based on a Norwegian vessel, the KV *Svalbard*, the design was then Canadianized to meet Canadian specifications. The first of class is scheduled to begin construction in 2015 and be delivered in 2018.

### **Canadian Surface Combatant**

The CSC project will renew the RCN's combat fleet by replacing the capabilities provided by the destroyers (Iroquois-class) and the multi-role patrol frigates (Halifax-class). This is Canada's largest and most complex shipbuilding initiative since World War II and will ensure the RCN can continue to monitor and defend Canadian waters and contribute to international naval operations.

There will be two CSC variants: Area Air Defence and Task Group Command and Control (AAD/TG), and a General Purpose (GP) version to serve in three operational profiles: a Task Group (TG) environment; open ocean and littoral operational environments; and joint operations (which are expected increase in the future).

Possible core capabilities for the CSC may include land strike and support to land operations and maritime interdiction operations, anti-submarine warfare supported by multi-static sonar and electronic warfare, integrated full electric propulsion, and advanced phased array radar and air and missile defence radar.

Given RCN staffing shortages, there is a question as to whether the new CSC can be crewed by a reduced complement, much like the USN Freedom-class littoral combat ship with its core crew of 50, and 65 with mission crew; the French multi-mission frigate (FREMM) can sail with a crew of 95, but can accommodate up to 155 personnel; and HMS Daring, the Royal Navy's type 45 air defence destroyer, has a regular crew of 190, but can accommodate up to 232.

Irving Shipyard is expected to begin cutting steel in 2020 and deliver the first vessel in 2025, and the last is expected in 2032 to 2034.



Photo courtesy of Seaspan Vancouver Shipyards

### **Joint Support Ships**

The federal government's 2008 cancellation of the original \$2.9-billion JSS project to replace its 45 year-old supply ships as "too expensive" sent everyone back to the drawingboard. Eventually, blueprints for Germany's Berlin-class were purchased, and ThyssenKrupp Marine Systems Canada will "Canadianize" the design, which will then be called the Queenston-class.

Seaspan's Vancouver Shipyard has been selected to build the replacements for Auxiliary Oiler Replenishment (AOR) ships *Protecteur* and *Preserver*, as part of the non-combatant component of the NSPS.

The two double-hulled ships, to be named HMCS *Queenston* and *Chateauguay*, will have a range of 10,000 km and will be able to remain at sea for 29 days. Its two replenishment stations (reduced from the original four for weight considerations) will permit ships to refuel from either side.

The JSS will have a standard crew of 165, with the ability to carry up to 250 when necessary.

The sealift capacity will include two Cyclone helicopters, two landing craft and up to 50 containers. It will be able to deliver limited cargo ashore, accommodate a future limited joint task force headquarters for command and control of forces deployed ashore.

Filling the core fuelling and resupply capabilities of the current AORs, the new JSS will also have modern medical and dental care facilities, including an operating room; and repair facilities for maritime helicopters and other equipment. The Queenston-class ships will have a basic self-defence capability.



New equipment and facilities at Seaspan's shipyards. (Photo Courtesy of Seaspan Shipyards)

Construction had been expected to begin in 2016, putting delivery of the first ship in 2019, however, with both *Protecteur* and *Preserver* at the end of their operating lives, is it possible the JSS timeline will change?

### **Conclusion**

The crews and leadership of the RCN have enhanced Canada's global image in allied operations, humanitarian assistance, and disaster relief around the world.

The NSPS is not only good news for Canada's flagging shipbuilding industry, it will inject \$36 billion into our marine and maritime industries. But even this commitment cannot bypass the unrelenting need for fast, flexible and formidable ships that can undertake the full range of maritime obligations required of our Navy.

Perhaps it is time to look at how our allies approach these issues. Several have ceased the practice of refitting ships in favour of a continuous shipbuilding program. Instead of refitting our warships at their 15 to 20 year points, perhaps we should install the new technologies, equipment and weapons into the latest warship on a continuous assembly line.

The result could be a Canadian Navy with the latest systems, more ships that are "Ready Aye Ready", and naval personnel with more time at their primary professions.

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