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ISSUE: DEVELOPING A NATIONAL SHIPBUILDING PLAN

Opened in 1959, the St. Lawrence Seaway created a need for new ships - “lakers” - to transport grain and raw materials from Thunder Bay to Montreal – ships being by far the most efficient means of transportation and, also environmentally clean (though not an issue at that time).

In 1966, bowing to international pressure, the federal government stopped its practice of giving subsidies to the Canadian shipbuilding industry. At that time the industry was relatively healthy with facilities all over the country – wherever there was ready access to ocean water or the Great Lakes. In addition, insofar as construction of naval ships was concerned, the government had just completed an impressive program that saw 20 destroyer escorts built in Canada over a 15 year period, and there were other shipbuilding projects in the wings.

By 1966, one naval supply ship – HMCS PROVIDER – had been delivered and that year 2 more supply ships – HMC Ships PROTECTEUR and PRESERVER – were ordered. The Navy’s General Purpose Frigate project, cancelled in 1963, was replaced in 1969 by a project to build the 4 DDH 280 Class destroyers. The Coast Guard built a few ships in the 1960s but it wasn’t until the 1980s when it embarked on several significant new construction projects. This was followed in the late-1980s by the Navy’s project to build the 12 HALIFAX Class frigates. Thus, all-in-all, over the past 35 years, insofar as government shipbuilding (major ships) has been concerned, in Canada it’s been a “boom or bust” scenario.

As a result of this scenario, plus other factors, the Canadian shipbuilding industry is, today, as far cry from what it was in the 1960s, 1970s, and 1980s – before shipyard rationalization became the norm. Thus, today, Canada has a small cadre of “large” shipyards – dispersed on both coasts and in the St. Lawrence/Great Lakes region.

As of the start of 2009 there hasn’t been any new large/complex ships ordered or built for the Canadian government for well over a decade. The average age of the Naval fleet is approaching 20 years but with some ships approaching 40 years of service. The Coast Guard fleet is even older with an average age of 28 years and again with some ships also approaching 40 years of service.

The federal government fleet is mainly operated by a few departments/organizations:

- DND – Navy – currently 15 frigates/destroyers, 4 submarines, 2 supply ships, 12 coastal defence vessels, plus over 30 training/auxiliary vessels;
- DFO – Coast Guard – 28 medium/large ships and upwards of 85 smaller vessels;
- RCMP – several small vessels; and
- Transport – small number of ferries.

In all, the government fleet totals about 180 ships and smaller vessels and several projects that would involve new construction have been identified:



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- Navy – 3 Joint Support Ships, 6-8 Arctic/Offshore Patrol Ships; and
- Coast Guard – 1 Polar Class Icebreaker, 12 Midshore Patrol Vessels, 3 Offshore Fisheries Science Vessels, and 1 Offshore Oceanographic Vessel.

In addition to the new construction projects, the Navy currently has a mid-life modernization project for its 12 HALIFAX Class frigates and other government fleet operators will likely refit many of their ships/vessels at regular intervals. It might also be expected that, over the next 25 years as expansion continues in the Asia-Pacific area and as the Arctic opens up to year-round travel, the government fleet could continue to grow, though this has not yet been forecast.

Of all the ships and vessels referred to above, because of their size, complexity, and cost, the Navy League of Canada recommends that a coherent 20-25 year plan be developed for construction and modernization of the Navy's frigates/destroyers, submarines, and supply ships and the Coast Guard's medium/large ships.

Such a plan might, for example, allocate ships of a particular type/size be built, modernized, and/or refitted by a particular shipyard. On the other hand, because naval ships are generally much more complex in their "mission systems" than are Coast Guard ships, a coherent procurement plan might allocate their construction, modernization, or refit to one or more particular shipyards but under the overall management and direction of a Canadian prime contract/system integrator to be selected on a competitive basis.¹

The aim of the plan would be to clearly identify the projects for both customer departments, their long-term timelines, and, for planning purposes, commitment of adequate funds to undertake each project. Hopefully, the plan would include a "continuous build" approach whereby, over a 20-25 year period ships are built continuously as opposed to continuing with the "boom or bust" approach that's become the norm.

Shipbuilding today, especially where government fleets are concerned, requires a very wide range of trades and skills, from basic labourers to highly-specialized electronics and computer (hardware/software) engineers and technicians. Thus, with a long-term plan that involves a "continuous build" approach, highly skilled Canadian jobs will be secured.

By enacting such a long-term plan, the Canadian shipbuilding and marine industries would be able to "plan ahead" – to invest in facilities and personnel - in order to be prepared to undertake portions of the planned procurements. In turn, this would endorse the government's shipbuilding policy of "build in Canada".²



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Within the marine sector, studies over the past decade have shown there to be an economic generation factor somewhere between 1.5:1 and 5:1, this being in addition to the project's Industrial and Regional and Regional Benefits.³ Of course, these economic spin-offs occur regardless of where the work is performed, thus adding further endorsement to the government's "build in Canada" policy.

A long-term plan would also create international opportunities for Canadian industry, particularly for systems and components, and thus provide additional economic benefits to Canada. Such a plan would also provide assurance to the government that the industries will be "there" in times of need/crisis and will be able to quickly respond to government needs.

¹ Because of the technical sophistication, the ship itself – the hull with its electrical power generation, propulsion and personnel support facilities – will sometimes be considered to be of lesser risk than the mission system that it carries and supports. As such, shipyards might be involved as subcontractors to a prime contractor/system integrator that takes overall responsibility for the entire platform, including its mission system.

² Exceptions to a "build in Canada" policy might be appropriate if the government were to procure a ship/vessel that is not/could not otherwise be built in Canada. An example might be if the government and the Navy concluded that it would be appropriate for Canada to procure nuclear powered submarines. The investment in infrastructure, training, and facilities would not likely warrant a "build in Canada" approach.

³ Economic generation factors remain a subject for debate as there doesn't seem to be a standard model for determining which spin-off benefits can be reasonably included. A 1999 study by a Canadian marine group came up with a ratio of 5:1. A study completed in 2006 for the south-west region of Australia came up with a ratio of 2.84:1 as the indirect (additional) economic generation factor. A more recent study for the Oceans Sector in BC came up with a 2005 ratio of 1.95:1 for the entire sector. Industry Canada sources suggest, based on a UK study, a factor of 1.68:1 for indirect shipbuilding jobs and a factor of 1.55:1 for value added work; their more conservative estimate is 1.5:1 for jobs and 1.38:1 for value added work. At issue in any of these studies is the number of "layers" the study is taken down to (the study used as the basis for Industry Canada's estimates only went down one layer). Thus, conservatively, a ratio between 1.5:1 and 2.5:1 seems reasonable.