

Sole Sourcing Naval Procurement

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In an April 14th 2004 speech Prime Minister Paul Martin promised seven billion dollars worth of new capital purchases for the Canadian Forces (CF), of which 2.1 billion was allocated for the purchase of three multi-role Joint Support Ships (J.S.S.).¹ The new J.S.S., which would replace the aging Protecteur Class, will serve as re-fuel and re-supply vessels for the fleet, but it will also be capable providing sea-lift and serve as a command center for forces deployed ashore.²

If history is any guide, the government would be better served purchasing a similar type vessel from one of its allies. An after action report of the Halifax Class frigate construction program revealed that similar vessels could have been acquired faster and cheaper from the international market.³ This would also have saved costly investments in infrastructure development and personnel training.

Despite this historical precedent the government has stated that the J.S.S. will be built domestically. Creating the infrastructure and training the personnel required for this build will cost hundreds of millions of dollars. This paper will examine whether sole sourcing naval procurement to a single shipyard could ensure the long term viability of this investment. It is not the best option economically, but rather it could balance the economic considerations with political realities.

Why build domestically?

At the root of the government's decision to build domestically is the number of jobs that will be created. At the present contract stage it is impossible to accurately state how many workers will be employed, but it would likely be comparable to the over 3,000 workers that were used during the construction of the Halifax Class.

The size and complexity of the J.S.S. build would require a well educated, highly skilled workforce. These workers would in turn command significant salaries. Industry Canada estimated in 2000 that the average wage within the shipbuilding industry was \$890.00 compared with the manufacturing average of \$760 per week.⁴ This does not include technical support staff, which typically makes up 30% of personnel requirements, or various managers.⁵ A 1994 RAND study estimated that average salary in American shipbuilding was \$80,000 (U.S.) per year.⁶

More importantly, building the vessels in Canada would mean that the majority of the \$2.1 billion would go to Canadians in the form of contracts and employment. If the ships were built in foreign yards the direct impact on the Canadian economy would be limited to industrial offsets, such as components or repair contracts. Building the ships domestically would provide significant direct benefits, in the forms of jobs, but also be an indirect help to the regional economy, in the form of increased spending and spin-offs.

This benefit, however, does not come without a cost. During the Halifax build \$340-360 million was spent developing infrastructure at the Irving shipyard in Saint John

while \$58 million was spent sub-contracting three vessels to the Davies Shipyard in Quebec.⁷ Millions more were spent on development costs. The government hoped that the \$9.54 billion contract would create a competitive industry in one of Canada's poorer regions and help kick-start the nascent Canadian defence industry.⁸

The program was initially a success, with over 3,000 jobs created in Halifax alone.⁹ but in the aftermath of the Halifax Class build the Irving Shipyard in Saint John was unable to acquire enough non-government contracts to remain viable. It built its last ship in 2000, before eventually closing in 2003.¹⁰ In the aftermath the Federal Government provided \$55 million to help shutdown the shipyard.¹¹ The Davies yard also experienced difficulties before eventually being forced into receivership.¹² In short the government was forced to invest significant dollars to develop the infrastructure and skills required to complete the contract only to pile on additional expense in its aftermath.

International Situation

The reason that the shipbuilding industry has been unsustainable outside of government contracts in Canada is due to a series of handicaps that it faces when competing internationally. These include: over-capacity within the industry, subsidies and foreign restrictions.

Foreign over-capacity is the root of the Canadian shipbuilding industries problems, with much of the blame falling on South Korea. Possessing more than a third of the global market South Korea is a major player within the industry.¹³ In the mid-

nineties South Korea undertook an aggressive expansion of its shipbuilding industry nearly tripling their capacity.¹⁴ This move and similar expansions by other leading players, such as Japan and the European Union, resulted in a world wide over-capacity that today reaches nearly 20-25 percent.¹⁵

Shipyards are able to maintain this capacity through extensive use of government subsidies. In some instances subsidies are in excess of 40 percent of cost.¹⁶ In real terms these subsidies can be even greater as governments provide generous loans at interests levels lower than the Organization for Economic Co-operation and Development (OECD) rate. In addition, unlike other manufacturing sectors, the terms of re-payment can often extend throughout the expected life of the vessel. Brazil, for example, offers twenty year repayment plans for shipbuilders with interest rates of 4 percent compared to the OECD rate of 6.28.¹⁷

Governments offer these incentives for a variety of reasons. One of the most important is the protection of jobs within the industry, but the strategic importance of the shipbuilding industry has also been used to justify government subsidies. Foreign governments, such as the U.S., have decided that assured access to shipbuilding facilities is a matter of national security.

A final handicap for Canadian shipbuilders is the Jones Act, a piece of American legislation that hinders its access to its natural market. Written in 1920 the Jones act requires that all water transportation of goods between U.S. ports be on U.S. built,

owned, crewed, and operated ships.¹⁸ The purpose of this law was to support the U.S. merchant marine industry. It has significant implications for Canada as it excludes Canadian shipbuilders from supplying US firms for their domestic use.

Canada has made many attempts to create a special role for Canada within the Jones Act, but so far has been rebuffed. During the North American Free Trade Agreement talks the Jones Act was specifically excluded by U.S. negotiators.¹⁹ Even if changes could be made for commercial shipbuilders in Canada, the military element could still be excluded under article 2102 of the NAFTA agreement.²⁰ These restrictions are a significant handicap for Canadian shipbuilders as it cuts them off from their largest, natural market. It is not difficult to imagine a similar crisis occurring within the automobile or aircraft industries if they were unable to access the U.S. market.²¹ The overall consequence of the Jones Act is that Canadian shipyards are heavily dependent on a domestic market that has significantly less demand.

The result of all these international factors is that Canadian shipyards are not competitive internationally. In certain niches, such as luxury yachts, Canadian yards have been very successful, but for larger, high value vessels the Canadian yards have proven unviable outside of government contracts.²²

Improving the Government's Decision

In spite of this the government has committed to building these ships in Canada. If the Federal Government is intent on developing this capability once again, is there a

way in which government policy could make the industry viable? In addressing this issue the experience of the Australians is instructive. After a period of increased naval expenditure during the 1990s the Australian government realized that expected procurement would not be enough to meet the requirements shipbuilding industry.²³ They expected that during the next fifteen years their demand for warship construction would be half of what it had been in the previous fifteen.²⁴ In previous defence documents the government had stated that Australia had a strategic interest in maintaining a viable military shipbuilding, therefore the government set out to examine the most economical way to preserve the industry.²⁵

Prior to this slowdown Australia, like Canada, relied upon a competitive market system to award defence contracts; the difficulty was that maintaining several competing shipyards in the future would place significant costs on the Australian government. As a result the government is examining the viability of a *Single Shipbuilding Entity Model*.²⁶ Under this model the government would set out the capabilities that the government required, such as an ability to build a certain tonnage, for the single entity. Industry would then be challenged to meet these demands. Eventually this policy and market forces would result in a single shipyard that would provide the government with all of its naval procurement, repairs and upgrades for the foreseeable future.

The obvious difficulty with this plan is that it creates a monopoly situation for the single supplier. Without competition the supplier could artificially inflate costs or pursue policies of vertical integration which would harm small and medium level contractors.²⁷

There are, however, many potential benefits. A single supplier is likely to achieve better scale and utilization rates than two or more suppliers.²⁸ The consolidation of functions should result in improved efficiency; lower overhead and better economies of scale. For example, learning curve costs would be lower under this model.²⁹ The stability of the single supplier would encourage the retention of highly skilled labor, which in turn would lower the training and “fumble” costs on additional projects.³⁰

A single supplier would also lower the cost of one time purchases, such as infrastructure and equipment that are typically added into the contract.³¹ Essentially by guaranteeing their use over various projects their costs could be amortized over their expected life, rather than paid at once. Finally, while less substantial, the sole supplier model would make contract tendering less expensive and time consuming, as it would involve only one company.³²

Over the course of the project’s life the single supplier model would create additional benefits. By using the same shipyard for repairs and upgrades the government could take advantage of a “corporate memory” which would increase labor efficiency.³³ Simply put, the same people that built it would be the ones effecting repairs and upgrades.

Despite these benefits, the risks inherent in this model are still significant. To mitigate them the Australians plan to take advantage of their monopsony, or single buyer, situation to create a set of rules to govern their relationship with the single

supplier. For example legislation would be created to ensure a competitive bid process among the sole suppliers' sub-contractors.³⁴ This would ensure that numerous creative responses are provided to particular challenges. The situation would require careful management by the government, but the Australians believe that if done properly it would provide significant savings and ensure the viability of an industry that they have deemed strategically important.³⁵

This is a policy driven solution that could prove to be effective in Canada. In effect the J.S.S. contract will create a monopoly type situation within the industry, as the winner would be the only shipyard capable of building vessels of this size and complexity. The major difference in the Canadian context is that the Australians would be implementing this policy during the final construction phases of the ANZAC Class Frigate and the Collins Class submarine. To be truly effective in Canada this policy would have had to been implemented after the Halifax Class build program. This problem is further compounded by the government's decision to not replace the Tribal Class destroyers at the end of their operation life. Instead the government plans to shift the Tribal's command and control responsibilities to the frigates and eventually replace both classes with one vessel somewhere around 2020.

This does not mean that the Australian solution is untenable. The J.S.S. is not slated to be delivered until 2011, to retain the corporate knowledge acquired during their construction the government could sole source the production of Coast Guard and Royal Canadian Mounted Police (RCMP) vessels as well as the proposed amphibious landing

ship to the yard that builds the J.S.S. In the immediate future various Coast Guard vessels, especially icebreakers, will be nearing the end of their operational life.³⁶ Although not as complex as the Navy's vessels, they still require a greater degree of sophistication than commercial builds. Sole sourcing their construction alongside planned frigate life extensions and the J.S.S. could maintain a viable military shipbuilding capability at a Canadian yard while they wait for the contract for the new destroyer/frigate class.³⁷

In short, sole sourcing Canada's procurement requirements is a policy driven solution that would guarantee the viability of the industry domestically, safeguard the governments investment and ensure a steady stream of new vessels for the Navy, Coast Guard and RCMP. It is not, however, a perfect solution. In addition to issues of monopoly, sole sourcing federal needs to one shipyard would likely be unpopular politically.

Politically Viable?

It is no secret that defence contracts are highly sought after by Federal leaders. Their inherent size make them valuable prizes for any region. As a result they have also attracted a lot of controversy. Few Western Canadians have forgiven the Mulroney government for awarding the lucrative CF-18 fighter maintenance contract to Montreal-based Bombardier over a bid from Bristol Aerospace of Winnipeg. More recently the Halifax build sub-contracted three ships to the Davies yard in Quebec to defuse political

pressure from the Quebec government. This move added \$58 million to the cost of the program.³⁸

By definition this contract would be in the neighborhood of 20-30 years, comprising an entire generation of vessels. This would make it extremely lucrative for the winning yard, in the tens of billions of dollars, ensuring profitability for the winning shipyard. There is little doubt that this would be fought over heavily.

To make matters worse there is no clear leader in the competition. Davies is the only yard with any experience in the building ships of this size and complexity, but the length of time since their last major build program combined with their financial difficulties limits the applicability of that experience. The reality is that each of the competing shipyards are in similar situations regarding infrastructure and personnel. Thus while sole sourcing makes sense from a policy point of view, how that contract would be awarded would be extremely difficult politically.

One possible solution would be for Canada to spread their contracts over two separate shipyards. The primary shipyard would deal with larger vessels like the J.S.S. or the proposed amphibious vessel, while a secondary yard would focus smaller vessels. This smaller shipyard would handle the Coast Guards smaller requirements and most of the RCMP's. In addition it could build and repair the navy's smaller vessels, such as the Maritime Coastal Defence Vessel (MCDV) while maintaining the capability to dock

larger vessels in the case of an emergency. In theory this could give Canada access to repair facilities on both coasts while providing the runner up with a secondary prize

Using a large and small shipyard concept would help alleviate some of the political pressure, but it would not eliminate it. Additional relief could be found through the sub-contracting of components and systems to regions away from the primary yard, but this would have the potential for greater additional costs. It might also be possible to soothe regional concerns through the awarding of additional army or air force contracts to regions not part of the shipbuilding contract.³⁹

In the end, though, this is policy driven solution that would require strong political direction. Battles over the placement of this shipyard, or any other sole sourced contract could easily result in political compromises that would dramatically add to costs, thereby defeating the initial goal of the exercise. Leadership would be needed to award the contract and weather the fallout from dissatisfied regions.

Conclusion

The Federal government has pledged to build the J.S.S. domestically. This will entail significant start up costs, in terms of both infrastructure and personnel. History has shown that the industry is not viable in long term without continued government support.⁴⁰ A sole sourced contract for federal naval procurement would guarantee the survival of the industry, maintain a strategic commodity and safeguard our significant investment.

The difficulty is that this is a policy driven solution that may exist outside of the political realm. Battles over the placement of this shipyard, or any other sole sourced contract could easily result in political compromises that would dramatically add to costs.

Ultimately sole sourcing defence contracts would shore up some expensive government decisions. It is not a perfect solution, but it could bridge the gap between political decision and economic realities. This, however, can only occur if strong direction is given as to the placement of the contract. Lacking that direction, this policy driven solution could end up being no solution at all.

Endnotes

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