



Seaspan Marine and the NSPS:

Creating a legacy and putting Canada back in the shipbuilding game.

**An interview with John Shaw,
Vice President, Program Management,
Seaspan Marine Corporation**

After 18 months, developing a bid that contained 25,000 pages and cost over \$2.0 million to produce, Vancouver Shipyards Co. Ltd. was successful in securing the contract for the non-combat vessel portion of the National Shipbuilding Procurement Strategy. In this exclusive interview with John Shaw, Vice President, Program Management for Seaspan Marine Corporation, *BC Shipping News* looks at the background on the bid process, the moment of the announcement and, most importantly, what happens now...

BCSN: *Could you describe the process to develop the bid?*

JS: After the federal government announced the NSPS at CANSEC in June 2010 for 28 ships at a budget of \$35 billion, an Industry Day was held in August, followed by a Solicitation of Interest and Qualifications in September. Five successful shipyards were announced in October — Peter Kiewit, Irving, Davie, Upper Lakes Marine Industrial and ourselves and between October and January

2011, each company was visited by First Marine International (FMI) — a British consulting firm who are world experts in shipyard layout production and efficiencies. They carried out a benchmarking exercise which looked at the current status and future capability of just over 150 elements — things like steel-cutting, pipe-fitting, machine shop, engineering design, human resources, supply chain, and marketing. Each element received an evaluation score between zero to five. FMI also worked with the federal government to set target states for each element. We received the final evaluation report from FMI in March 2011 and that report formed the basis of a lot of the work that went into the bid.

The proposal was broken into five areas:

1. The mandatory section (which is not rated) for issues such as demonstrating solvency and agreement to abide by Canadian laws.
2. *Current state and plans to meet the target state.* The current state was based upon the FMI evaluation and

the target state provided the goal we needed to achieve. The main purpose here was to improve capability and productivity.

We needed to demonstrate our commitment to support the marine shipbuilding industry now and into the future...

3. *The cost to achieve the target state and how much of that would be a cost to Canada.* We're planning on investing between \$100 to \$200 million in facilities both here and in Victoria and I believe it's already public knowledge that there will be no cost to the Canadian taxpayer as long as the federal government commits to building all seven vessels.
4. *Financial capability* — we had to demonstrate the financial strength of the company and the ability to obtain funds for infrastructure and future new builds.
5. *Value propositions.* This was the most interesting section and will have

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the greatest long-lasting impact. We needed to demonstrate our commitment to support the marine shipbuilding industry now and into the future through human resources development, technology development and industrial development. For example, in the human resource category, we outlined plans for sponsoring and supporting apprenticeship programs to train a new generation of shipbuilders; we also plan to develop a curriculum and program that would train people to become planners, schedulers and estimators. We've been talking with BCIT about this and estimate a timeframe for implementation somewhere near 2013-14. We want to develop a curriculum that is broad-based so it can involve more people. We'll also be supporting the Engineering Program at UBC to enhance the Naval Architecture Program. Within the technology category, we focus on materials, new processes, new techniques and what has the best and biggest impact on improving shipbuilding or improving the materials that come into shipbuilding. And in the industrial development category, we look at improving the supply chain in Canada — whether it is equipment, material or services — so that individual manufacturers in the country are competitive worldwide.

As per any large government contract, you have to meet the Industrial Regional Benefits Policy to demonstrate 100 per cent Canadian value. Obviously, there will be a need to spend some of the money on supplies or services that are not available in Canada but there is a formula and process in place to ensure offsets can be made — for example, suppliers would invest in Canada or we would invest in training programs. It's a fairly standard policy that has been in place a long time.

BCSN: *I noticed that the bid was submitted under the name of Vancouver*

Shipyards Co. Ltd., not Seaspan Marine Corporation. Why was that done?

JS: There were two requirements within the Solicitation of Interest and Qualifications — first, that we be a Canadian shipyard; and second that we have delivered a ship (or have one under contract) over 1,000 tonnes within the last 10 years, and Vancouver Shipyards qualified under both of those. We built the *M.V. Island Sky* for BC Ferries in 2008 and that vessel is just over 4,000 tonnes.

BCSN: *Regarding the evaluation of the bids, the scores released on the*

government's website are: For the combat contract: 82.8 per cent for Irving Shipyards and 74.9 per cent for Vancouver Shipyards; for the non-combat contract (which Irving, having just won the combat contract, was removed from the process): 76.8 per cent for Vancouver Shipyards and 63.2 per cent for Davie Shipyards. Are you able to provide insights into where your strengths and weaknesses lay compared to Irving or Davie?

JS: No. We all signed non-disclosure agreements but the results were explained to us. The process was very open



Seaspan Marine Corporation Vancouver Shipyard workers celebrating the announcement of the \$8 billion contract.



Left to right: Seaspan Marine Corporation CEO Jonathan Whitworth, BC Minister of Tourism, Jobs and Innovation Pat Bell, VP, Program Management John Shaw, and Seaspan Executive Chairman Kyle Washington.

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and very fair. When we looked at it, we were satisfied with our scores. Kudos to Irving Shipyards — they're a good shipyard and a good company. At the end of the day, we have eight billion reasons to be happy. We're happy with how things worked out. Plus, there are another 24 vessels that should fall under the non-combat build program that have yet to be funded. We are hoping the federal government moves ahead with funding for those additional vessels as that will

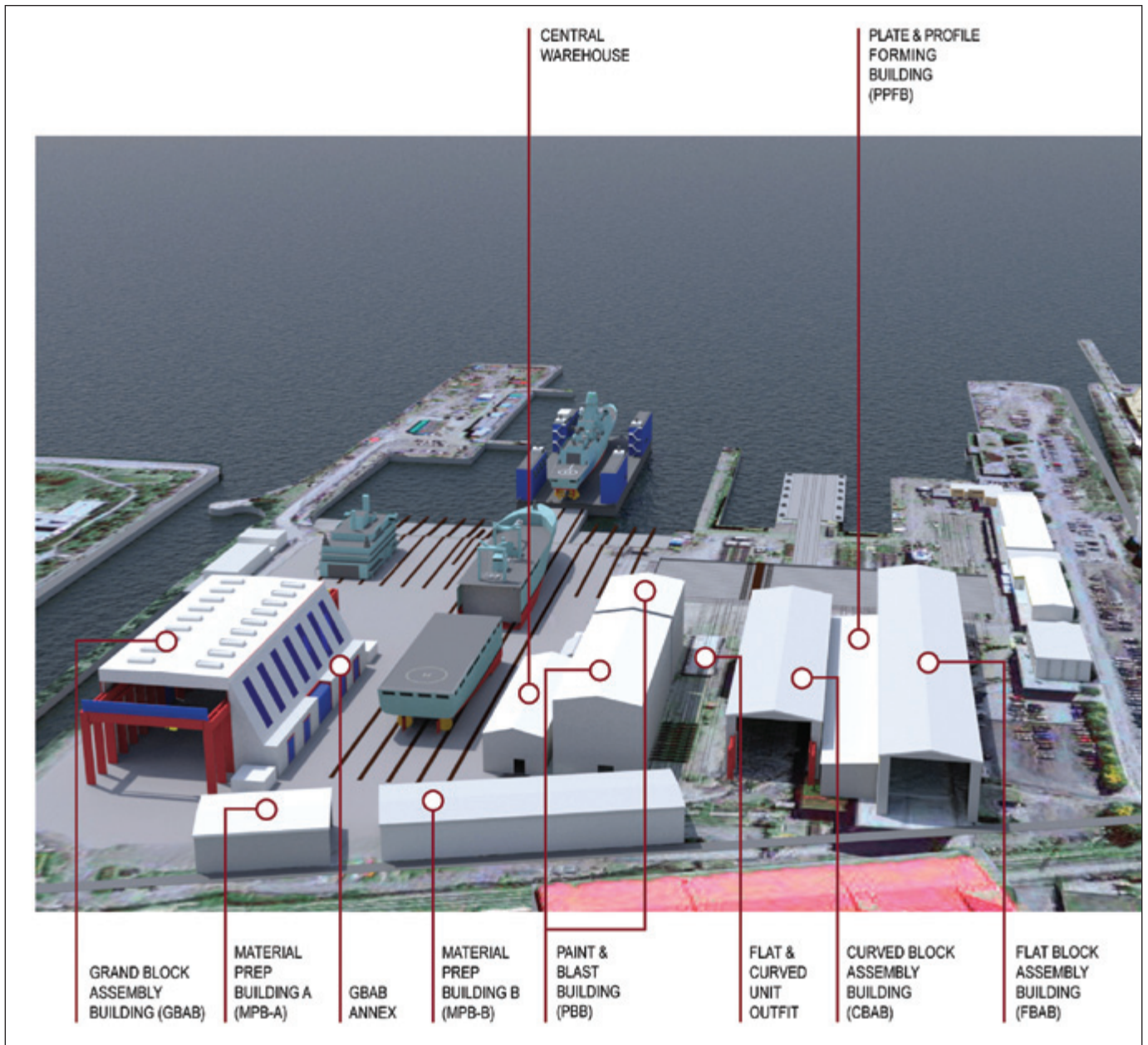
increase our award amount and timeline by several decades.

BCSN: *Could you provide some details on the support you received from the provincial government as well as other partners?*

JS: The provincial government received some criticism because they seemed to be late to the game but to put this in perspective: Just at the time we were ramping up to garner support, they changed leadership. The premier, once elected, was fully onboard — her

first speech in the legislature was about the shipbuilding program and her support for Seaspan. They will help fund the apprenticeship program. There is an existing program in place, but they will be extending and enhancing that program to help bring more young people into the industry.

David Hahn, President & CEO for BC Ferries, publicly announced his support for the bid early in the process. He's supporting the value proposition



Vancouver Shipyards facility layout: seven of the nine shipyard buildings will be new (all except the Flat Block Assembly Building and the Plate & Profile Forming Building).

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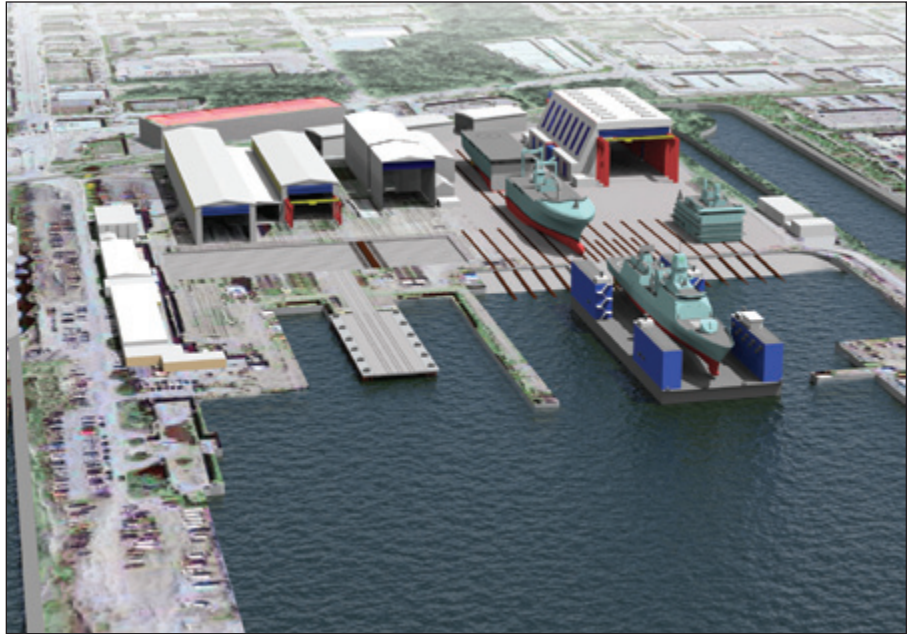
because he sees the long-term benefits. This will have a significant impact on the shipbuilding industry and the marine industry in Canada overall. It will be a benefit to all of us, from Allied Shipyards to Point Hope, as well as BC Ferries, Upper Lakes Shipping, Algoma. It will help everyone because of the improvements that will be seen in the supply chain; because of the increase in training opportunities and having more people available in the industry; and because of the increase in facilities and technology.

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The NSPS was not just about the price of the ship — it was all about selecting two companies who were willing to make the investment to become world-class shipyards. Canada wanted to get best value and how do you do that? You improve productivity and you allow people the opportunity to invest — if you have a steady job, you'll buy a house, you'll buy a car. You're investing. Same with us. If we have the prospect of long-term work, we will invest. This allows us and Irving to invest in facilities so that we have world-class capability and can provide best value to Canada. We can't compete on labour on the international stage, but we can on productivity. Having long-term prospects of work so that you can invest in new equipment, facilities and people; and maintaining a certain volume of work are the cornerstones of promoting productivity.

BCSN: *Easy one: Describe the moment you heard the news.*

JS: There were six of us in the room when we received the first call at 12:05 pm on October 19. This was the five-minute warning before receiving the call with the official announcement.



An artist's rendering of the new facilities at Vancouver Shipyards.



Victoria Shipyards will get a new building on the south jetty.

And then after five minutes, it turned into six, then seven, then eight minutes. Finally, Jonathan gets the call, says 'uh-huh, uh-huh', with no change in expression and then he said: "We would be happy to build the non-combat ships for Canada" and the room just erupted. When the government made the announcement public, there was actually a

company-wide eruption because we had set up small events throughout the company — Victoria had the radio blasting across the yard. You go into this with a strong belief that the bid you put in and the work you put into it was the best you could do but there's still that nervousness and anticipation until you actually hear.

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BCSN: *Now what?*

JS: Now, we're heading down three or four different paths simultaneously. We're preparing for negotiations with the government for the umbrella agreement which is an over-arching agreement spelling out how we will work together now and into the future.

BCSN: *Once that's signed, does that mean that future governments can't alter arrangements?*

JS: No. There's always that uncertainty. The government can't commit to building things in the future if it doesn't have the money and priorities change.

Once we sign the umbrella agreement, the government will supply the design package for the first project which will be a set of drawings and specifications. This will be for the Offshore Fisheries Science Vessel (OFSV) which has already been designed by RALion (A

Robert Allan Ltd./Alion Science and Technology Joint Venture). We will go through a series of steps with this — a design check to agree with the engineers and architects who designed the vessel; we'll have to do some engineering work ourselves for things like selection of equipment and integration of specific equipment into the ship; then we'll have to prepare an estimate and negotiate that estimate and the contract. Contracts will be established on a project by project basis.

In terms of timeline, the umbrella agreement will be worked on from now until the end of the year. I would estimate the turnaround cycle for getting into contract with the Canadian Coast Guard for the OFSV will be four to six months. After we have the contract, we'll have to do the production design and build strategy which should take another six months so we'll be looking at cutting steel on the first vessel by this time next year. After that, we will start overlapping projects — you start one, get into it for a certain period of time and then start the next.

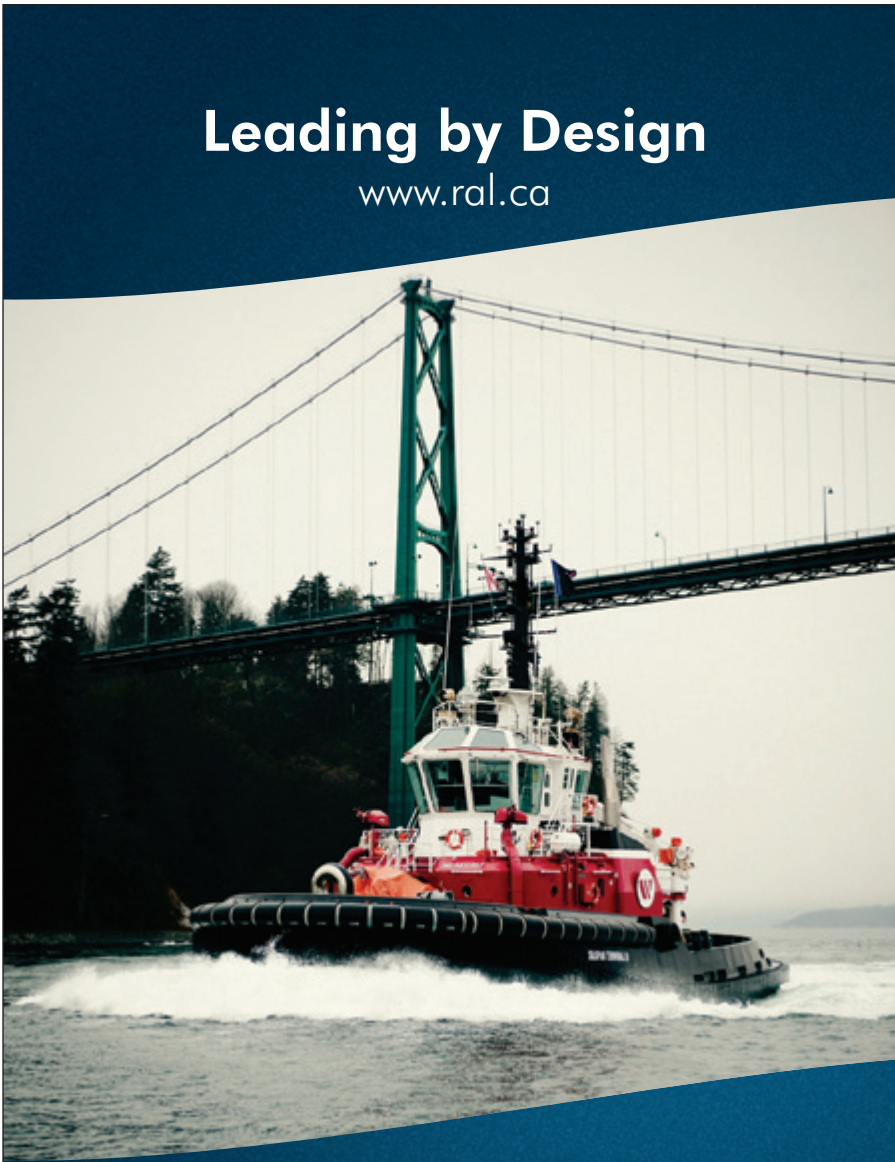
BCSN: *Let's discuss the vessels. The contract calls for two Joint Support Ships (JSS) (with the option of one additional), one Offshore Oceanographic Science Vessel (OOSV), three Offshore Fisheries Science Vessels (OFSV) and one Polar Icebreaker. Which will be most challenging?*

JS: For sheer size, it will be the Joint Support Ships. For complexity, probably the Polar Icebreaker because of the scantlings — i.e., the structure that goes into the ship. Interestingly, the last icebreaker built for Canada was the Henry Larson in 1988 at Burrard Yarrows so it's appropriate that the new one be built here. I also did sea trials on the Henry Larson back in 1988 — a funny coincidence and great example that sometimes in life, things come full circle.

BCSN: *How will the work be split between Vancouver and Victoria and what sort of timelines are we looking at for deliveries?*

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JS: The intention is to construct the ships in Vancouver. Most of the steel-work and a lot of the outfit work will be done here and once it can be launched, we would then tow it to Victoria where they will complete the outfit right through to final tests and trials. In the meantime, Victoria will continue on with the FELEX (Frigate Life Extension Program) and VISSC (Victoria Class [Submarine] In-Service Support Contract) and we expect to have work start on *HMCS Protecteur* next year which will last until late 2013.

For delivery dates, the OFSVs should be in service by 2015; the OOSV is expected for 2014; followed by the JSS' and then the Polar Icebreaker.

BCSN: *Could you describe the plans for infrastructure upgrades?*

JS: For Vancouver, we actually started the process of developing the preliminary engineering on all of the buildings during the bidding exercise of the Joint Support Ship in 2007. Even though that bid was never awarded, we have structural, electrical and mechanical foundation drawings that are new and can be applied here. We need to complete detailed engineering — take the conceptual drawings and first stage drawings and, at the same time, go through a permitting process with both the District of North Vancouver and Port Metro Vancouver. Once we get permits, then it's shovels in the ground by the middle of next year. It will take two to two and half years starting right now.

There are seven new buildings planned (see detailed photo on page 34). The largest and most complicated will be the Grand Block Assembly Building (GBAB). The building will contain two 60-tonne overhead cranes and one 20-tonne overhead crane so you have the capability of lifting up blocks of 120 tonnes. Essentially, steel panels will come into the Flat Block Assembly Building and the Curved Block Assembly Building where they will be joined to form blocks. The blocks then go to the paint shop, then taken to the GBAB and joined together to form hull

sections. From there, they are taken out to the building berth and put together. The ship is joined together and put on wheeled vehicles to be moved out onto the floating drydock.

For Victoria, one new building facility on the south jetty is planned. Offices, shops, accommodation areas for staff and workers will be included here as well. The timeline for Victoria is from 2012 through to 2013.

This is a fabulous opportunity to provide a long-lasting legacy for the shipbuilding industry on the West Coast.

BCSN: *Do you have an estimation of staffing levels and timing?*

JS: We have already started advertising for positions and we have incremental increases planned that will eventually double our workforce — both hourly and yearly, office and shop floor. We will need close to 400 people by 2013, primarily for Vancouver and this could swell up, depending on build schedules, to close to 1,000 people by 2015. Victoria already has 700 to 800 people and will increase to about 1,000 next year when we start the refit on *HMCS Protecteur*. The first work in Victoria will probably be in late 2013 which fits in well with the completion date on *Protecteur* work.

Just recently, we announced a new contract to build six new chip barges for Seaspan and this will allow us to maintain our current workforce and start developing those practices and techniques that will make us successful on the NSPS.

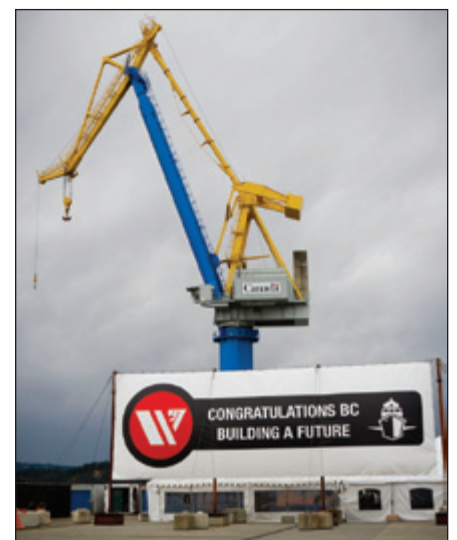
BCSN: *Before we wrap up, is there anything else you'd like to add?*

JS: This is a fabulous opportunity to provide a long-lasting legacy for the shipbuilding industry on the West

Coast. We need to be successful on the first ship and build on that. Also, this has been a very unique government process. As we move forward and work with the federal government to understand each other's needs, it will be a tremendous benefit to both government and industry. Oh, and if I didn't do it earlier, just another nod and thank you to all of the people involved in getting us to this point — both internal staff and external resources, partners and supporters. We are all sharing in this victory.

John Shaw joined the Seaspan Marine Corporation in September 2007 as Vice President, Process Improvement, bringing over 30 years' experience in the marine industry. In 2010, he took on the role of Vice President, Program Management, in charge of developing and implementing strategies to secure future government shipbuilding work.

Prior to joining Seaspan, John worked and held technical and management positions with Yard Inc., Lloyd's Register and Thordon Bearings. He holds a B.Sc. in Mechanical Engineering from Queen's University a M.Sc. in Marine Engineering from the University of Newcastle. **BCSN**



The sign at Victoria Shipyards says it all.

For more details and updates, visit www.seaspan.com
or www.seaspanforNSPS.com.

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The non-combat vessels of the NSPS contract...

Two Joint Support Ships



Photo credit: Cpl Roderick Hopp, Esquimalt Imaging Services

The JSS' will replace the current Auxiliary Oiler Replenishment vessels (like HMCS Protecteur as shown left) and will provide underway support to naval task groups, limited sealift, and support to forces ashore. They will provide fuel, ammunition, spare parts, food, water and other supplies; will contain medical and dental care facilities as well as repair facilities and expertise to keep helicopters and other equipment functioning plus basic self-defence functions. (Source: DND)

Three Offshore Fisheries Science Vessels



Intended to replace CCGS Teleost, Templeman/Needler and Ricker (above), the OFSV will conduct fishing and acoustic surveys in the Northern Atlantic and Pacific Oceans. Initial vessel specifications are a length of 65 metres with a draft of 6.5 metres and a design speed of 14 knots. The vessels will be capable of carrying a crew of approximately 25 plus 18 scientific staff and stay at sea for up to 40 days without reprovisioning. (Source: DFO)

One Offshore Oceanographic Science Vessel



The OOSV will replace CCGS Hudson (above) and will conduct multi-disciplinary physical, chemical and biological expeditions in the Atlantic and Arctic Oceans. It will carry a crew of approximately 28 with room for 31 scientists. Initial specifications call for a length of 90 metres and it will be capable of remaining at sea for several months. Increased efficiencies onboard include automation in the machinery spaces and an integrated bridge. (Source: DFO)



One Polar Icebreaker

CCGS John G. Diefenbaker National Icebreaker will replace CCGS Louis S. St-Laurent (above) which is expected to be decommissioned in 2017. At a length of between 120 to 140 metres, the Polar Icebreaker will carry a complement of 100 personnel and accommodation for 25 additional people. It will also be able to accommodate two helicopters and has large cargo-carrying capacity. When completed, the new flagship Polar Icebreaker will be the largest and most powerful vessel Canada has ever owned. (Source: CCG)