



TIM PAGE

VICE-PRESIDENT, GOVERNMENT
RELATIONS, SEASPAN SHIPYARDS
BUILDING NEXT GENERATION
SHIPS FOR THE RCN AND
CANADIAN COAST GUARD

CDR: *Seaspan Shipyards won the NSPS non-combat package in October, 2011 and signed the umbrella agreement in February, 2012 to build ships for the Royal Canadian Navy and Canadian Coast Guard. Can you please give us an update on where all those projects stand at this time?*

TP: As you know, NSPS has been designed to avoid the boom and bust cycles that have defined earlier federal government shipbuilding programs by sequencing the construction of new vessels. Seaspan won the right to build the non-combat portfolio at our facilities on Canada's West Coast through a competitive process.

Canada has established the order in which we will be rebuilding Canada's non-combat maritime capability, as follows: Three Offshore Fisheries Science Vessels (OFSV); one Offshore Oceanographic Science Vessel (OOSV); two Joint Support Ships (JSS); one Polar Icebreaker; then up to five Medium Endurance Multi-Task Vessels (MEMTV) and up to five Offshore Patrol Vessels (OPV) and on from there.

We are currently under full rate production on the OFSV project with expected delivery of the first vessel in early 2017; the OOSV project is moving forward with work on long lead items and construction engineering, and we are fully engaged on design work on the Joint Support Ship.

SEASPAN ON SCHEDULE FOR JSS

CDR: *As you know, the navy currently is in a position where it has no AOR supply ships available to it and it is having to work with navies of allied nations to allow it to carry out its missions. In fact, the situation is now so desperate that the navy is looking at an "Interim AOR" solution to bridge the gap until the JSS ships are delivered by Seaspan. In his last interview with CDR, Brian Carter, president of Seaspan Shipyards, said that Seaspan is scheduled to build the three science vessels before it even cuts steel on the planned JSS ships in late 2016. This prompts the question, is Seaspan's building of the JSS ships for the navy behind schedule?*

TP: No. Seaspan is on schedule and on budget with the Joint Support Ship, meeting all of our deliverables to the Royal Canadian Navy.

As we work collaboratively with the RCN to progress JSS, it is good news that the RCN has found and secured a Navy-to-Navy interim solution with both Chile and Spain to support Canada's replenishment at sea capability. We have been told that the Chilean Navy has lent AOR capability to Canada for 45 days in 2015, 125 days in 2016 and is willing to discuss Canada's potential needs in 2017 and beyond until JSS is delivered to Canada beginning in 2021. The RCN will also continue to have access to refueling bases in the Pacific theatre in Pearl Harbor and Guam as is its custom.

We understand that Canada is talking with Davie about its ideas around an interim capability they are proposing through a lease of a converted containership, an option a number of companies, including Seaspan have also offered to Canada.

CDR: *Did Seaspan consider putting forward a proposal to the navy for some kind of interim supply ship solution to bridge the gap until the JSS ships are delivered?*

TP: Yes. Seaspan's Victoria Shipyards, along with over 100 representatives from other interested companies, participated in a January 2015 Industry Day that was held to explore industry options for interim supply ship capabilities. Seaspan was an active participant and subsequently provided its written advice later that same month (perhaps a little known fact but Seaspan has a containership sister company with 70 active vessels in its fleet and manages the lease of these vessels to customers).

Our advice to Canada centred on the trade-offs between cost, capability and schedule – emphasizing a reduced interim capability in order to contain costs and expedite delivery so as to increase the payback period on the investment before the JSS is delivered.



Working with Babcock on Victoria Class refit

We believe that Seaspan's Victoria Shipyards has the requisite skills borne of our multi-year experience on the FELEX and VISSC programs to work effectively with Canada should its current discussions not progress. In such an eventuality, none of that work to be performed in Victoria would distract us or divert resources away from Vancouver Shipyards development and delivery of the JSS.

CDR: In February 2014, Seaspan announced it was investing \$200 million in infrastructure upgrades to enable it to carry out all the work it contracted for under the NSPS contract. What is the status of these upgrades currently and what additional shipbuilding capability will these upgrades bring?

TP: Your timing is a bit off. In February of 2012, we signed the NSPS Umbrella Agreement which gave us the confidence, having won the non-combat package in 2011, to make the necessary infrastructure investments in our Vancouver Shipyards (VSY) on Vancouver's



Celebrating the start of production at Seaspan

north shore and Victoria Shipyards, located at the Esquimalt Graving Dock. We designed and modernized these shipyards, with our own money, specifically to build the entire non-combat package, particularly JSS and Polar, in the most efficient and practical way possible.

The shipyard modernization project was completed in October, 2014, two months ahead of schedule and under budget at \$170 million (\$155 million at Vancouver Shipyards and \$15 million in Victoria).

Of particular note, almost 28% of all contracts let by Seaspan on the shipyard modernization project were competitively won by First Nations companies and joint ventures located in North Vancouver.

Seaspan's Vancouver Shipyards is now among the most modern in North America.

CDR: With all the new work that Seaspan will be doing under NSPS, what will this mean for Seaspan suppliers and the local and regional economies?

TP: To date under NSPS, we have awarded over \$321 million in contracts to 137 Canadian companies. These numbers will increase significantly as the non-combat package matures. Our projections over the first ten years of the non-combat package are that we will stimulate the growth and sustenance of 5,000 direct and indirect Canadian jobs, generate \$1.425 billion in supplier spend across Canada and contribute \$500 million per year in GDP for the economy of British Columbia.

DEALING WITH JSS DESIGN CHANGES

CDR: Getting back to JSS, it was announced that these ships will be built according to the Berlin Class design from ThyssenKrupp in Germany, how is Seaspan working with that

company to ensure the design meets Canadian requirements, will there be any significant design changes and what kind of challenges do you expect there?

TP: Seaspan is working closely on JSS design development with TKMS and Canada, both of which are members of our JSS Integrated Project Team. TKMS has staff located at VSY to support insight into the parent design. To date, we are dealing with the design changes that have been asked for by Canada and a handful of VSY-driven changes to accommodate design-for-production efficiencies.

CDR: In June it was announced that Seaspan would be starting construction on the first of its NSPS ships, the Canadian Coast Guard's Offshore Fisheries Science Vessel (OFSV). Can you please tell us something about this ship, what it will mean for the CCG and what the schedule for construction will be?

TP: The Offshore Fisheries Science Vessel (OFSV) is a sophisticated marine science platform designed to collect, analyse and report on the marine habitat in an open ocean environment. They will replace an aging fleet at the end of its operational life. Unlike the vessels being replaced, OFSV is purpose built for marine science.

Key to this new vessel is its ability to support sophisticated acoustic surveys, thanks in part to its drop keel design. The vessel will also employ traditional fishing methods to analyse marine life at depths of up to 2,500 meters. The new and improved vessel is designed with an on-board wet laboratory to conduct physical, chemical, biological and habitat mapping assessments to describe and monitor distribution, abundance and health of marine species, marine mammal and seabird populations.

In addition to these missions the OFSV will perform search and rescue, fishery patrols (conservation and protection), marine navigation services, environmental response, maritime security and support other government departments and agencies as assigned.

Vessel Highlights:

- 3 vessels to be delivered to Canada, the first in early 2017
- Modern gear for surveys up to approximately 2,500 m depth.
- 2,500 kw single screw diesel electric propulsion
- Displacement of approximately 3,200 tons
- 63.3 m (208 ft.) long x 16 m (52.5 ft.) wide
- Endurance for sustained operations for 31 day
- Crew of 36 (approximately 23 crew/13 science)

CDR: *With all the new work that Seaspan Shipyards is taking on both in Vancouver and Victoria, you will need to add to the workforce. Can you tell us something about the challenges of recruiting capable workers, engineers etc?*

TP: We have been extremely active on the labour front in our own right, in collaboration with educational institutions and through our labour unions with whom we have established collective bargaining agreements through 2018.

Since signing the Umbrella Agreement in 2012, we have hired more than 295 in staff, management and supervisory trades' positions at Seaspan Shipyards.

We have started to invest our 'value proposition' commitments, before they were due, to stand up an aboriginal apprenticeship program and to support B.C.'s marine industrial training and applied research. We now have 6 aboriginal apprentices across our three shipyards.

We are working with the University of British Columbia's Naval Architecture and Marine Engineering (NAME) program to take on interns and are pleased to report that we have offered full-time employment to three of the school's first cohorts, two of which have recently been promoted within our engineering department.

We are active in trade and career fairs, in outreach to high schools and community colleges. And, in July, we were pleased to see a commitment by the provincial governments of Nova Scotia and B.C. to collaborate on trades training in the shipbuilding and marine sector.

LABOUR FORCE TO GROW TO 1,000

CDR: *How will the Seaspan workforce grow over the course of the NSPS contract?*

TP: At the peak of NSPS construction, we estimate an in-yard labour force need of 1,000.

CDR: *What kinds of training systems does Seaspan have in place for its workers both new and current?*

TP: Seaspan lives by its core values which we believe are best supported through a culture of continuous improvement. This is illustrated by our commitment to training and is in evidence everywhere in Seaspan Shipyards' workplace from comprehensive safety protocols, environmental stewardship, technical certification courses, the mentoring of apprenticeship and respect in the workplace courses.

Thanks to a recently awarded Canada Jobs Grant we are co-investing in the development of a suite of online/e-learning modules that will

educate our workforce to the core manufacturing processes and equipment functionality at each stage of construction (SOC) and how they relate to each other.

Our responsibility to the welfare and knowledge of our workforce is priority number one and through that we believe we will best advance our core objectives of delivering quality vessels to Canada through strict attention to schedule adherence, cost containment, and production efficiencies in a safe and productive work environment.

CDR: *Under the NSPS contract, Seaspan is slated to build the Polar Icebreaker for the Canadian Coast Guard but the project was pushed back from its original slot in October, 2013. What was the rationale for that decision and what is the current plan for construction of the Polar Icebreaker?*

TP: It is clear that both the Polar Icebreaker and the Navy's Joint Support Ships are extremely important to the Government of Canada and are designed to replace vessels that have been maintained in service beyond their normal life expectancy.

In keeping with the intent of the NSPS to avoid the boom and bust cycle of shipbuilding and living up to the commitment to VSY made

Finding what you really need is only possible when you have the best marine offering on earth to choose from. Wärtsilä is the market leader in improving efficiency, proven gas solutions and ensuring environmental compliance while protecting profitability. Our global service network offers support when and where you need it. Read more at www.wartsila.com/naval





Seaspan is working closely with TKMS on JSS

in the NSPS Umbrella agreement, the federal Government chose, in 2013, to sequence the JSS ahead of the Polar Icebreaker. Our shipyard is designed to efficiently build both and we will.

HISTORY OF WORKING WITH THE NAVY

CDR: *At the Victoria facility, Seaspan has had a long history of working with the navy under Malcolm Barker's leadership but he has now retired. How will Seaspan leverage this experience of working with Canada's navy at the Victoria facility on the JSS project?*

TP: Seaspan's Victoria Shipyards (VSL) plays an integral role in delivering on all of our NSPS commitments. VSL will be the location of final outfitting and the test and trials phase for each vessel. Malcolm Barker did an outstanding job in building the business and the reputation of Victoria Shipyards in the eyes of our government and commercial customers. We can't afford to rest on our laurels and so we have hired someone we believe is among the best in the business as his successor.

Joseph O'Rourke is already demonstrating his value add from a business perspective at VSL and around the Seaspan management table. Joe has also brought to Seaspan decades of experience supporting the US Navy maintenance requirements on the West Coast and is confident his VSL team is ready to support the JSS project when and as it is called on to do so. Under Joe's leadership, VSL will continue to deliver quality service in the successful FELEX and VISSC projects.

CDR: *Seaspan has invested some \$15 million in the Victoria yard, what kind of new capability will this bring there?*

TP: Seaspan's investment at Victoria Shipyards was made as part of our shipyard modernization project as referenced above. Specifically, our investments included the construction of a multi-use building (now known as the Barker Building) to provide office and working space for our NSPS customers and Vancouver Shipyards Commissioning Group for the Test and Trials work on each completed vessel. This new space consolidates two separate machine shops, provides a purpose built value overhaul

packages of Canada's Halifax-class frigate, the HMCS Regina.

The success of this program has been recognized by Canada and now by the government of New Zealand which has made the decision to refit its ANZAC class frigates at Victoria Shipyards. We hope this is a harbinger of good things to come from the international marketplace as we progress our NSPS work.

Also Seaspan's Victoria Shipyards is working hard on the VISSC program through an alliance with Canada's prime contractor, Babcock Canada, and is expected to complete the EDWP contract on the HMCS Corner Brook submarine in 2018. This is the second docking and upgrade contract to be executed for the VISSC program by Seaspan, after the HMCS Chicoutimi was successfully delivered back to Canada in 2014.



Seaspan will build Polar Icebreaker for the Canadian Coast Guard after JSS has been completed

facility and creates a dedicated training room with connectivity for 24 computers.

EXPERIENCE ON HCM-FELEX

CDR: *Can you tell us about the repair and overhaul work that Seaspan does on a regular basis for Canada's navy?*

TP: We have a very good working relationship with the Royal Canadian Navy thanks to our shared experience on the Halifax-Class Modernization-Frigate Life Extension (HCM-FELEX) Project and to their on-site physical presence with us at Victoria Shipyards. As a sub-contractor to Lockheed Martin on the FELEX program, Seaspan is now completing our fifth and final modernization and upgrade

CDR: *Can you tell us something about the modular construction process that Seaspan will employ in building the ships for the navy?*

TP: VSY's shipbuilding strategy is predicated on a "design then build" approach and defined manufacturing processes that rely on using a block construction method, purpose designed work centers, and high levels of pre-outfitting. Key to modern ship construction is design for production, lean and modular design which will enable VSY to optimize a ship's design to match our production facility. This will drive production efficiencies up and support project cost containment.

Our focus on pre-outfitting is vital to achieving significant operating efficiencies – according to the 1-3-8 principle - equipment and other outfitting that costs one dollar to install in the block stage in a controlled shop

environment, costs three dollars if installed in the erection berth, and eight dollars if not installed until the ship is in the water.

CDR: Of course we know Seaspan for its work in building ferries and also the Orca class ships for Canada's navy but the new NSPS ships are bigger and more complex so will there be much of a learning process in adapting to these new ship designs?

TP: Shipbuilding is complex business – not for the faint of heart. Key to production success is a strong ship design, tailored for manufacturing in what is now the most modern shipbuilding facility in North America at VSY. Seaspan has also invested heavily in process development and has attracted the best and the brightest to our shipbuilding team.

Yes, we will be learning as we build the first vessels in our new facility. Even though these first vessels are smaller than JSS and Polar, they are highly complex and will serve to rapidly establish VSY's processes and prove the capability of our new shipyard. We are committed to capturing lessons learned at each and every stage of a project's life-cycle and applying them so as to maximize the benefits to our customers and to our own bottom line.

LOW LOONIE ATTRACTING OFF-SHORE BUSINESS

CDR: With all this work on your plate there at Seaspan, is there any room left for additional contracts from other countries or cruise lines for example?

TP: Yes. Seaspan's shipyards in Vancouver and Victoria remain commercially business focused although we are also performing important work for Canada in our shipyards. As a commercial shipyard, our future depends on driving our cost structure down and our production efficiencies up. This applies to commercial and government work alike. It is for that reason that we are investing in productivity and process efficiencies across our shipyard systems.

That ability will allow us to continue to be a good choice for cruise ship owners. Business at Victoria Shipyards and our Vancouver Drydock remains very active in this respect and we are working with the federal government to address the potential unintended consequences on our cruise ship business of recent changes to the Temporary Foreign Worker program.

We are also a long time service provider to the BC Ferries Corporation and to the Canadian Coast Guard for whom we are currently

doing mid-life repair and maintenance work on one of its west coast hovercrafts. From our Vancouver Drydock we do repair work on BC Ferries, container and tankers as well as other commercial vessels.

With the advantage of a lower exchange rate, Seaspan is working to attract business from customers all along the west coast of North America.

CDR: What does the future look like for Seaspan?

TP: Bright. Seaspan is a diversified, privately held company that is establishing itself as the Shipbuilding and Ship Repair Centre of Excellence on Canada's West Coast. We are bullish about the future and proud of our accomplishments in three short years since the signing of the NSPS Umbrella Agreement.

We are confident in our role as a catalyst for the rebirth of shipbuilding in Western Canada and looking forward to celebrating NSPS success with a growing number of suppliers and tradespeople as we deliver non-combat vessels to the Canadian Coast Guard and the Royal Canadian Navy.

CDR: Thanks for speaking with us.



Leveraging Canadian Defence Procurement Through Export to Create Jobs and Economic Growth



Relocatable Temporary Camp (RTC)



Medium Support Vehicle System



MECC™ Containerized Dental Facility



200 MECCs in Canada

Export Multiplier

2,500 MECCs Worldwide





South Africa Navy Camp



UK MoD MECC™ Tool Crib



Australia Medical Shelter Program

8355 Riverbend Court, Burnaby | BC | Canada V3N 5E7 | Tel 604 451 8900 | Fax 604 451 8999 | info@weatherhaven.com | www.weatherhaven.com