

The Admiral Sends:

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Opinions Makers With Naval Interest (OMNI)

VICTORIA CLASS SUBMARINES

Over the past few months there have been several stories and articles in various media, mainly Halifax-based, which have been critical, in varying degrees, of Canada's decision of 1996 to acquire four nearly new Upholder diesel electric submarines and the current state of their reactivation into the Canadian Navy, including some of the technical and mechanical problems we have experienced lately such as diesel exhaust valves, dents, and so forth. Accordingly, I wish to bring you up to date on this subject, so that when a future opportunity arises, in whatever forum, venue or circumstance, for you to discuss the issue, you are suitably informed. I intend to discuss this matter with you in detail within the context of the following over-arching issues: why Canada needs a Navy; the strategic utility of submarines; safety concerns; our relationship with the UK; and, the complexity of procurement programs such as this one.

Why does Canada need a Navy? Although many Canadians do not think of it in this way, most of you know that Canada is a maritime nation. Canada's maritime area of responsibility includes nearly 59,000 kilometres of coastline--the longest in the world--and approx. 4 million square kilometres of ocean. Our Exclusive Economic Zone (EEZ) is almost 6 million square kilometres--one of the largest in the world. Forty per cent of our GDP is derived from trade with others and over 350 million tonnes of cargo move through Canadian ports every year. It is thoroughly in Canada's best interest that international sea trade routes remain open and stable.

The immediate post-cold war decade demonstrated, as nothing else could, the utility of a navy in the practical execution of Canada's broadening and maturing foreign policy. While the public has been largely pre-occupied with domestic issues, there has been a growing sense that Canada has an important role to play in the broader international forum and that deployed naval forces further that role.

Post-September 11th, national attention has re-focused on domestic and continental defence. Public understanding of the 'homeland defence' issue and the role the navy can play in it is critical to our future. Some view the homeland defence issue as a civil and/or army problem with the air force and the navy simply taking care of defending the perimeter.

But where is that perimeter drawn--at the extent of the 200-mile limit, or on the doorstep of our potential adversaries, anywhere in the world? The latter reflects current strategic thought -- i.e. a strategy of "engaged internationalism" as articulated in the Navy's Strategy Document for 2020--*Leadmark*.

By the year 2050, scientists say, the Northwest Passage will be ice-free all summer long. Therefore, the Navy is looking carefully at developing a naval capability in arctic regions within twenty years. From the broadest perspective, then, the principal challenge facing the navy is adjusting to the fundamental changes that are taking place within the world's geo-strategic framework -- and having the resources to respond meaningfully to them -- and thus keep Canadian foreign policy relevant. In the long term, technological advances are driving change (the "revolution in military affairs" that has pre-occupied western strategic thought for some time). The proliferation of terrorism with its tools of "asymmetric warfare" is a worrying trend. This threat will grow.

We are being forced urgently to confront our operational assumptions and re-assess the naval forces that will be required to defend Canadians and Canadian interests worldwide in both the near and distant future. Achieving "interoperability" with the United States has been a fundamental part of our navy's response to this challenge. Today, the Canadian Fleet maintains an unparalleled level of interoperability with the United States Navy. All navies recognize the USN as the leader in operating and maintaining a modern fleet. Interoperability allows Canada the flexibility to rapidly deploy ships on operations anywhere in the world, either independently or as part of a NATO or multinational task group or even a US Carrier Battle Group.

We are also widening and deepening our operational relationships with "first responders" in other government departments (OGD's) in anticipation of worst-case terrorist scenarios. The navy (and the other armed services) will play an important supporting role to OGD's -- not only providing "platforms" and personnel when military force is required, but also co-ordinating the national response.

As many of you know, the Canadian Navy has been transformed from one that was mainly equipped to deal with the submarine threat in the Atlantic to a balanced Navy with ships that can deal with the full spectrum of modern naval warfare - against air, surface and sub-surface threats. One of the great advantages of having a Navy is that ships can deploy within days or even hours and can be on the way to any location in the world. Once there, they can remain almost indefinitely.

Why does the Navy want submarines? There is no substitute for the stealth, endurance, versatility, and combat capability of a submarine. The decision to acquire the Victoria Class Boats enables us to maintain a long-term submarine capability, which is a responsible, economical and innovative way to keep Canada in the submarine business for many years to come. Almost all of the countries around the world that border on the sea have navies and several of these have submarines. In fact there are hundreds of them with ever increasing capabilities. Submarines pose a global sub-surface threat to like-minded democracies such as Canada, US and the UK. The best counter to this threat is having our own submarines because the most formidable deterrent or opponent to a submarine is another submarine. Essentially, we currently have a modern and very capable surface fleet. Now, we will soon have a very modern sub-surface capability as the Victoria Class submarines continue to arrive in Canada and become operational. Our submariners are thoroughly pleased with the acquisition of the Victoria Class submarines

and are looking forward to taking these capable vessels into service as a contribution to Canada's naval forces. They will be used, among other roles, to train the surface fleet in anti-submarine warfare.

What about the safety of these new subs? Safety is never compromised. Although, submarine operations, by their very nature, involve a certain level of risk, the Victoria Class Submarines are safe boats and our Canadian submariners are among the most professional, dedicated and well trained in the world. They are well versed in standard operating and emergency procedures. To ensure safe operations, the Navy employs an extensive array of training, tests, trials, operational certification and deficiency reporting systems. We never knowingly expose our people to undue risk. In fact, we have put additional requirements in place while the boats are going through activation trials under UK control but with Canadian crews for this very reason.

The delays we are experiencing in reactivating these boats are not entirely unexpected, as these boats were in a dormant period for a few years before Canada agreed to acquire them. This period at the BAE systems shipyard in Barrow, known as the Custody Care and Maintenance period, coupled with the rigorous reactivation trials program the British authorities, including the Royal Navy, and the Canadian Navy have put in place to ensure these boats are operationally and technically sound, has meant that a few challenges have arisen, which we have had to deal with and which have caused some delays. It must also be remembered that in the case of our own Canadian Patrol Frigates, we operated HMCS HALIFAX in a trials and rectification period for a period approaching three years. Trials programs are intended to find out what is wrong and then allow time to rectify the problems, as they may arise. These are excellent submarines. Let's not forget, that although these boats are relatively new, the RN did operate them and put them through their paces for about five years.

The Navy is confident that these boats are safe and will serve Canada extremely well for a long, long time. The key thing for us is that when we accept these submarines on behalf of Canada, is that they must be fully operationally capable. Therefore, in this context, a few months delay in the acquisition process is entirely acceptable. The Navy takes the safety of its crews and vessels extremely seriously and will not put them at undue risk. The Navy's safety record, with regard to operating submarines, is unblemished. The key thing for us is that when we accept these submarines on behalf of Canada, is that they must be safe for our submariners to operate. We do not cut safety corners. Therefore, in this context, a few months delay in the acquisition process is entirely acceptable. Our goal is a safe submarine and a sustainable capability.

Now let's discuss some specific issues that have been raised in the media lately:

Issue: **Diesel Hull Exhaust Valves:**

During the past several months, the Canadian Submarine project team in consultation with the UK Ministry of Defence has been examining the diesel hull valves on the submarines because British authorities had discovered some cracking in these systems during reactivation preparations. To date, cracking has been located on valves in CHICOUTIMI and VICTORIA but not on those in WINDSOR or CORNER BROOK.

Diesel exhaust valves serve as the main path of engine exhaust from the submarine's diesel engine through the pressure hull. We have concluded that these valves do not fully meet the expected operational performance parameters and may require repair or replacement. Canadian and British authorities are actively investigating solutions for this problem. A combined government and industry team, involving participants from Canada and the UK, has been formed.

The total impact this situation will have on HMCS CHICOUTIMI, (UPHOLDER) the oldest of the four boats, and others in the class is under study jointly by the Canadians and the British. As more data is gathered and analysed, we will advise. It is too early to determine if this will delay either CHICOUTIMI or any other boat, however this is a concern. We are now focusing on whether some or all the valves need to be replaced. We are also negotiating with our British counterparts the arrangements for repairs including cost and responsibility. The cost of one valve is approximately \$120,000. In the end, we will come up with the safest, most cost effective solution(s) to resolve this issue and the individual fixes may differ for each boat.

I cannot state more strongly that these boats are safe and that our submariners are among the most professional, well trained and dedicated in the world. They have my full confidence.

Issue: Deflection in HMCS VICTORIA's hull:

Several months ago, while HMCS VICTORIA was on the Syncro-lift in Halifax undergoing her Canadianization period, a barely visible dent was discovered in her pressure hull when one of her acoustic tiles had been removed. This deflection is consistent with what would be expected when manoeuvring the sub with tugs, but the timing of the damage is, at this stage, not completely certain. Our naval architects have concluded that this defect will not preclude the submarine from operating. However, it is not unusual in these cases for safety purposes to impose a diving restriction. Therefore, until this slight hull deflection is fixed when VICTORIA arrives on the West Coast, we have placed a minor diving restriction on the boat. Nevertheless, make no mistake; we have not compromised safety.

A docking will be required to fix this problem completely at a cost approximately \$400,000. At this juncture, we intend to operate the submarine as is and consider a full repair in the longer term as part of a normal docking period.

Issue: Submarine Crew Training

One recent news article in the Halifax Daily News called into question the quality of training the Navy is currently providing to the submariners who are preparing to man the VICTORIA Class boats. For added credibility, the story quoted a former submarine commander who is of the opinion that the training "... is not up to the standard that it used to be," because we are replacing sea time with simulator time.

However, the story was well refuted the next day in the same paper by the current head of submarine training, Cdr Randy Truscott, who, although acknowledging that there was more alongside and simulator training time than was the case in the past, stated “The sailor we are producing that’s going into the submarine is better that we have ever produced in the past.”

Issue: HMS URSULA/HMCS CORNER BROOK’s activation trials halted.

During sea trials off the west coast of Scotland during the evening of July 1, 2002, HMS URSULA (CORNER BROOK) took on water through the Submerged Signal Ejector (SSE). Under Royal Navy command, the Canadian crew of approximately 50 responded swiftly and appropriately. No injuries occurred. The boat has now returned to Barrow-in-Furness where the situation will be more fully investigated, including a thorough assessment of the SSE.

The Royal Navy, in concert with BAE, is preparing the submarine for delivery to the Canadian Navy. However, the boat remains the property of the Royal Navy until sea trials and evaluations have been completed and Canada has formally accepted it. A trial period is a standard military or commercial process to prove any vehicle or piece of equipment entering into service. It is during this period that issues are identified and resolved.

A preliminary decision has been taken that the crew will proceed immediately on leave to reunite with their families, while British authorities further assess the problem and effect necessary repairs. Trials are scheduled to resume in the fall with naming, acceptance and delivery to follow in sequence after that.

How is our relationship with the UK? The Canadian Navy, RN and BAE personnel have an excellent working relationship with the common purpose to deliver these submarines to Canada safely and in a condition in which they meet the full range of operational capability for which they were designed. Any suggestion that British authorities have anything but the most honourable and professional intentions with regard to the reactivation of these submarines is not true. We continue to work hand in hand with our British counterparts as we have done from the very start of the acquisition process. All our discussions and reactivation work has been conducted in a most constructive and cooperative manner. From a safety perspective, the stringent certification process used to certify HMCS CORNER BROOK as safe to proceed to sea is the very process employed across the Royal Navy submarine fleet. To suggest a double standard is untrue. Attempts by some journalists to suggest that there is a wedge between Canada and the UK authorities is simply wrong.

What about the complexity of this acquisition project? These are excellent submarines and an excellent deal for Canada. If Canada had opted for a project to acquire new submarines the costs would have been at least four times the cost of the

VICTORIA class boats and I can assure you that issues and unexpected additional costs would arise with even new boats. These submarines are very capable but complicated warships. Therefore it is not uncommon for technical issues such as the diesel hull exhaust valves to crop up occasionally during a reactivation phase such as the one we are currently undergoing. The introduction of the Victoria Class submarines into active service has been delayed by about 18 months from our original estimate. Were we originally a little optimistic? Yes! This has been frustrating. The rigorous reactivation trials program the RN and the Canadian Navy have put in place to ensure these boats are operationally and technically sound, has meant that a few challenges have arisen, which we have had to deal with and which has caused some delays, but we are working through them.

I wish to conclude by saying how proud I am of our Canadian sailors, who serve their country so well and selflessly and their families who support them so ardently. I fully intend to continue to do all that is in my power to ensure the safe operation of HMC Ships and Submarines and the safety of all who sail in them.

Yours aye,

OSB

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