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Future Roles for the RCN

by Serge Bertrand
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INTRODUCTION

Canada's maritime forces¹ are much more deeply connected to national security and prosperity than suggested from a traditional reading of their missions and roles.² To understand why, we must examine how Canada's relationship with the world has been transformed over the past several decades through globalization.

Canadians tend to think of their prosperity in terms of Canada's access to the United States and the networks of bridges, roads and rail that move goods within North America. In reality, these networks are part of a larger global economy made possible by maritime commerce.

Over 90% of all global commerce travels by sea, including two-thirds of the world's oil.³ Maritime commerce touches daily on Canadians' lives. They experience it in the variety of goods from which they can choose as consumers, and they interact with it through virtually every purchase they make.

The pervasiveness of maritime commerce is only partially observable in Canada's international trade figures.⁴ Hidden in the data is the deeper structural reality that national and regional economies have been completely reorganized into an integrated global economy. That global economy has enriched Canadian lives as producers and consumers, but it has also created deep interdependencies the world over. The economies of the United Kingdom or Japan, for example, would begin faltering in a matter of days without maritime commerce. But even North America, arguably the most self-contained regional economy in the world, depends heavily on international maritime commerce.⁵

The forces that have created a global economy have also transformed societies themselves by creating a vast and intricate web of relationships – political, economic, financial and social – that have permitted unprecedented flows of wealth, ideas, goods, services, culture and people among the world's nations. We call this hyper-connected and massively interdependent world order the 'global system.'⁶

There are few states more 'globalized' than Canada.⁷ It is among the world's most connected societies. It is among the world's most successfully plural societies, with personal connections and family roots extending around the globe. It is among the world's most active participants in the international community. And it is among the world's largest trading states.

THE RCN'S FUNDAMENTAL PURPOSE

Today's global system has evolved beyond recognition from its earliest days, when the Portuguese first rounded the Cape of Good Hope. But oceanic trade has been fundamental to the Western way of life ever since, as has the seapower that served to protect it. It is no accident that across those five centuries, the leading economic power of the day – Spain, the Netherlands, Great Britain and today the United States – was also the dominant seapower of its era.

There is a deep relationship between seapower and the economic, legal and political world order.⁸ In today's globalized era, Western navies, led by the United States, are the principal guarantors of the maritime peace and good order⁹ upon which the global economy depends. But even as large a navy as the US Navy is insufficient to the task. Defending the global system – and



hence Canada's prosperity and way of living – is a cooperative outcome that navies such as Canada's and likeminded allies deliver as one of the greatest public goods of this global era.

We turn to the missions for the Canadian Armed Forces (CAF), now recast in terms of this fundamental strategic purpose. In the coming decades, Canada's maritime forces shall:

- *Protect* Canada by exercising Canadian sovereignty in home waters,¹⁰ securing the maritime approaches to North America and contributing to maritime peace and good order abroad.
- *Prevent* conflict by strengthening global maritime partnerships¹¹ and deploying forward to promote global stability and deter conflict from the sea.
- *Project* Canadian power to shape and, when necessary, restore order to the global system.

NAVY FOR THIS GLOBAL ERA

Key trends and drivers in today's global era have deepened the political, legal, economic and military stakes in the world's oceans, making for an increasingly complex and competitive future at sea. Ocean politics¹² continue to intensify at home and abroad.

Maritime defence and security threats are merging and expanding as operations across the spectrum of conflict grow more complex.¹³ This is especially the case in a relatively narrow zone near the world's coastlines where the majority of humanity resides. This is where the most serious consequences of massive change and social disruption will continue to unfold in the decades ahead, making intrastate conflict nearly certain to challenge Canada in the coming decades. This is also where the Royal Canadian Navy (RCN), as part of a joint Canadian Armed Forces (CAF), will need to be prepared to operate against both state adversaries as well as armed maritime groups,¹⁴ against the backdrop of an intensely populous littoral environment¹⁵ that is orders of magnitude more complex than anything the RCN has yet experienced.

A reordering of global power is also underway, with profound implications for great state cooperation, competition and confrontation. Nowhere is this more evident than in the evolving Sino-American relationship, which may already be the defining geopolitical issue of our time, and specifically in the interaction of the maritime strategies each state is pursuing in the Asia-Pacific region.¹⁶ At stake is the integrity of global maritime order itself, an issue which is central to Canada's vital interests.

On the one hand, China has conflated 'core interests' with *a priori* but tenuous historical claims to waters in the East and South China Seas that it calls its 'near seas,' while invoking an unusually expansive interpretation of the UN Convention on the Law of the Sea (UNCLOS) in its perceived national interest.¹⁷ On the other hand, the United States, as the ultimate guarantor of the current global and maritime order, must find ways to accommodate China's rising ambitions and interests without fundamentally changing that order.¹⁸ Moreover, the United States must also contend with the prospect that China may well succeed, without approaching the rough parity of naval power needed to match the US Navy's ability to project power globally. Indeed, all China needs to do is deny American access in its near seas for a period of grave instability in the global maritime domain to ensue, bringing with it the prospect of great power conflict.



EPA

This paper does not suggest that such prospects are pre-determined. It argues that Canada must be prepared for such outcomes over the period spanning the operational lives of the RCN's next generation of major warships, which will still be at sea in 2060.

Nonetheless, the RCN's most fundamental task remains to defend Canada's home waters. It will continue to do so primarily through support to its federal partners that are mandated to enforce Canada's jurisdictions, rights and obligations as a coastal state. This will continue to require the RCN to exert its presence where and when needed, including the requirement to control events at sea. The ability to do so will remain founded upon maritime domain awareness, an understanding of *who* is operating in Canada's home waters, *what* they are doing and *why*.¹⁹ The outcome of these three maritime capabilities – awareness, presence and control – is what allows Canada to exercise its sovereignty at sea.

Accordingly, Canada will continue to require a fleet of sufficient size to operate in Canada's three oceans and deploy abroad on an ongoing basis, while retaining the ability to respond to a major international contingency. Canada will continue to need a navy that can act with sovereign independence to defend Canada's territory but that is highly interoperable with the United States to help defend North America. Canada will continue to need a navy that can contribute effectively to major international operations.

However, to meet defence and security challenges in the coming decades, Canada's maritime forces will need to be:

- *Better equipped for sustained Arctic operations.* The *Harry DeWolf*-class Arctic and Offshore Patrol Ships (AOPS) will serve as the RCN's primary springboard for meeting growing defence and security obligations in the Arctic, resulting from their ability to help regulate Arctic home waters as well as to monitor and respond to events, ranging from assuring the safety of mariners and responding to environmental disasters, to confronting

incursions against Canada's sovereignty. These ships will also play an important part in developing Canada's High North in the coming decades, a process that will be conducted largely by air and from the sea. Future joint and maritime operations in the Arctic will hinge upon the continued development of a constellation of unmanned, semi-autonomous and remotely-operated intelligence, reconnaissance and surveillance (ISR) systems, such as those being explored by Canada, Norway and the United States.²⁰

- *Better equipped to conduct peace support operations.*²¹ Recent operations by the RCN as well as allied navies have underscored a pressing need for the CAF to acquire a dedicated peace support ship, specifically to meet the unique demands of humanitarian assistance and disaster relief (HA/DR) operations.²² Such operations typically unfold in chaotic conditions, often in the absence of, or hampered by extensively damaged, transportation networks and infrastructure. The characteristics that would permit such a ship to act as a seabase²³ include: a substantial sealift capacity to embark personnel, vehicles, force logistics and humanitarian materiel for transport into theatre; equipment to embark/disembark cargo as well as transfer cargo at sea; deck space to accommodate or operate medium or heavy lift aircraft and landing craft to act as the ship/shore connectors to project, sustain and support a force ashore, as well as to recover it; and the internal space that can be dedicated to a joint headquarters, civil-military coordination centre, and medical and dental facilities and accommodations for evacuees.

Such a vessel would likely be among the most heavily utilized assets in the future CAF inventory. Capable of anticipatory pre-positioning or rapid deployment, a peace support ship would be an ideal platform for joint action across a range of relatively permissive scenarios. Such scenarios would include the evacuation of non-combatants from zones of incipient conflict, as well as support to forces ashore during a post-conflict recovery or stabilization period.

Moreover, such a vessel would likely emerge as the CAF's principal defence diplomacy asset, deployed routinely to regions of strategic interest to Canada with a range of personnel and joint capabilities embarked to strengthen regional capacities and strategic partnerships, or more broadly to conduct goodwill missions with other federal agencies and non-governmental organizations and assets embarked.

- *Better equipped to contribute to joint action ashore,* through the acquisition of weapons designed for precision operational or tactical fires²⁴ in support of a joint force, as well as systems for theatre-level air defence to permit the protection of joint forces and populations ashore from short- and medium-range ballistic missiles. The latter capability would also be especially pertinent for the strategic North American defence partnership, as it would represent a major step-change in Canada's capacity to contribute to NORAD and would likely encompass significant changes to current bi-national command arrangements.

DELIVERING TOMORROW'S NAVY

Today's maritime forces are the result of investments made by governments prior to 1993, when defence spending equated to 1.8% of Gross Domestic Product (GDP) or higher. The modernization or replacement of those assets was advanced with considerable difficulty when defence spending fell to an average of 1.1% of GDP. The ability of future governments to continue leveraging these prior investments, in terms of current policy-directed defence



outcomes, is rapidly drawing to a close. There is simply no question more fundamental to the success of the Defence Policy Review (DPR) than to bring expected defence outcomes and spending levels into balance in the long term.²⁵

The recommendations offered below recognize that it will take more than a decade to achieve a new balance. Accordingly, this paper advocates the sequencing of additional investments in the near to mid-term through modest adjustments involving public/private partnerships and a reprofiling of fleet renewal by extending the life of the RCN's current generation of patrol ships and in particular its submarines.

In this vein, the government should:

- Continue efforts to accelerate the RCN's recapitalization, consistent with the need for robust requirements definition to reduce strategic risks, while retaining the National Shipbuilding Procurement Strategy (NSPS) as the most assured basis of recapitalizing the fleet. The costs of such an approach compare favourably to offshore production, especially in light of the strategic advantages that accrue from a robust domestic industrial base.²⁶
- Use public/private partnering as a complementary activity to the NSPS, where requirements can be met through vessels built to modern commercial standards. Such an approach, already in place to acquire an interim AOR for the RCN in 2017, holds promise for the potential acquisition of a purpose-converted peace support ship, described earlier, as well as the acquisition of a new generation of coastal patrol ships to replace the *Kingston*-class Maritime Coastal Defence Vessels (MCDVs).
- Increase funding for fleet maintenance (DND's national procurement account). Aging hulls need enhanced levels of deep maintenance, and recurring shortfalls in relation to demand have incrementally led to growing liabilities that will need to be addressed, especially in relation to the life extension proposals that follow.
- Extend the life of the *Victoria*-class submarines and the *Kingston*-class MCDVs as a means of retaining fleet capacity while the RCN undergoes the transition from the modernized *Halifax*-class frigates from the mid-2020s through the mid-2030s.
- Plan to replace the *Aurora* Maritime Patrol Aircraft and *Victoria*-class submarines.



¹ Canada's maritime forces comprise the *naval* and supporting forces generated by the Royal Canadian Navy (RCN) as well as the *maritime air* and supporting forces generated by the Royal Canadian Air Force (RCAF).

² The Canadian Armed Forces (CAF) are mandated to: protect Canada and defend its sovereignty; defend North America in cooperation with the United States; and contribute to international peace and security.

³ According to the International Maritime Organization.

⁴ Canadian exports of goods and services were equivalent to 30.2% of GDP in 2012, and total trade (exports plus imports) was equivalent to 62%, the second highest ratio in the G8. While trade with the United States accounted for 70.3% of this activity, overseas trade remained an indispensable direct source of Canadian wealth. See Global Affairs Canada, "Canada's State of Trade: Trade and Investment Update – 2013."

⁵ Consider, for example, the F-Series pickup truck. Although it is assembled in plants located in Missouri and Michigan, only 55% of its parts are made in Canada or the United States. Another 15% originate from Mexico. The remaining 30% comes from overseas. Of the 164 vehicle brands that were manufactured in North America in 2011, only 22 qualified as domestic vehicles under American commerce rules, defined as having 75% or more of their value derived in parts originating from Canada or the United States.

⁶ The term *global system* is intended not only to describe today's world order, but also to convey the idea that many contemporary societal, political, economic, climatological and security challenges are essentially global in scope, multi-dimensional in connecting across multiple policy domains, and borderless in relation to national and international governance.

⁷ See A.T. Kearney Inc., "The Global Top 20," available at www.colorado.edu/AmStudies/lewis/ecology/global06index.pdf. In 2015, Canada ranked as the world's sixth most globalized country, when measured against political engagement in the international community, technological connectivity, personal contact and economic integration.

⁸ For a fuller discussion of the relationship among seapower, international law and the maritime order, see Donna J. Nincic, "Sea Lane Security and U.S. Maritime Trade: Chokepoints as Scarce Resources," in Sam J. Tancredi (ed.), *Globalization and Maritime Power*, Washington: National Defence University, 2002; and Serge Bertrand, "Navies, the Law of the Sea and the Global System in the 21st Century," *Ocean Yearbook*, Volume 26, No. 1 (2012).

⁹ By *maritime peace and good order*, this paper refers to a condition in which the high seas are kept safe and free for all to use lawfully, without infringing upon a coastal state's rights to protect its maritime resources, enforce its territorial integrity and regulate its home waters through domestic and international law.

¹⁰ This is a descriptive term that encompasses a coastal state's internal, territorial, contiguous and archipelagic waters (where applicable), as well as its exclusive economic zone, as specified in the 1982 UN Convention on the Law of the Sea (UNCLOS).

¹¹ This would be done through the exercise of defence diplomacy, or global engagement, denoting the peaceful application of defence resources to achieve positive outcomes in the development of a country's bilateral and multilateral relationships.

¹² *Ocean politics* deal with the struggle for values, resources and power in relation to the ocean. See Peter Jacques and Zachary A. Smith, *Ocean Politics and Policy: A Reference Handbook*, ABC-CLIO, 2003, p. 2.

¹³ The maritime analysis summarized in this paragraph builds upon on Chief of Force Development, Department of National Defence, *The Future Security Environment 2008-2030*, 2010, as well as a number of more current allied assessments, most notably the National Intelligence Council, *Global Trends 2030: Alternative Worlds*, 2012, and the US Marine Corps 2015 Security Environment Forecast, *Futures 2035-2045*.

¹⁴ *Armed maritime groups* are defined as organizations capable of maritime action that are party to an armed conflict, but that do not answer to and are not commanded by one or more states. Hamas and Hezbollah are among contemporary examples, but the most evolved in capabilities and organization was the Liberation Tigers of Tamil Eelam (LTTE).

¹⁵ Western navies have adopted an operational view of the term littoral, rather than a strictly geographic one. For example, American joint doctrine defines the littoral region as an operating environment consisting of two segments: seaward, the area from the open ocean to the shore that must be controlled to support operations ashore; and landward, the area inland from the shore that can be supported and defended directly from the sea.

¹⁶ The recent American defence policy and military literature abounds with analyses of the Asia-Pacific region. For one the most concise and cogent unclassified analyses of the interaction between Chinese and American maritime strategies, see Andrew S. Erickson, "Are China's Near Sea 'Anti-Navy' Capabilities Aimed Directly at the United States?" blog post, June 2012.

¹⁷ For an excellent interactive summary, see Council of Foreign Relations, *China's Maritime Disputes*.

¹⁸ See United States, Joint Chiefs of Staff, "The National Military Strategy," 2015.

¹⁹ The International Maritime Organization (IMO) defines *maritime domain awareness* as "the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment." It defines the *maritime domain* as "all areas and things of, on, under, relating to, adjacent to, or



bordering on a sea, ocean, or other navigable waterway, including all maritime-related activities, infrastructure, people, cargo, and vessels and other conveyances.”

²⁰ Specifically, Defence Research and Development Canada’s (DRDC) Northern Watch Technology Demonstration Project, the US Future Arctic Sensing Project and the Norwegian Polar Institute’s Arctic Earth Observation and Surveillance Technologies Project.

²¹ *Peace support operations* are efforts conducted impartially to restore or maintain peace. Peace support operations can include conflict prevention, peacemaking, peace enforcement, peacekeeping and peacebuilding.

²² Navies have made significant contributions to international disaster relief operations, including: Indian Ocean, post-tsunami in 2004; New Orleans, post-Hurricane Katrina in 2005; Haiti, post-earthquake in 2010; Burma/Myanmar, post-Cyclone Nargis in 2008; Padang, Indonesia, post-earthquake in 2009; Pakistan, post-monsoon flooding in 2010; Japan, post-earthquake/tsunami in 2011; and the Philippines, post-Typhoon Haiyan in 2014. According to one recent RAND analysis, naval HA/DR operations were especially useful in the broader Asia-Pacific region, not only because of the essentially maritime character of those theatres, but also because the region suffered more than half of the world’s major natural disasters.

²³ A *seabase* is literally a base at sea, comprised of one or more ships the function of which is to support the operations of a joint force ashore.

²⁴ The term *joint fires* refers to the coordinated employment of lethal and non-lethal systems by more than one component of a joint force, in support of a common objective. Long-range cruise missiles are an example of the type of weapon system that can be employed for joint fires. Long-range gun systems are another that soon will be able to launch multi-configurable munitions in volume, which can be directed independently or autonomously towards their targets with great accuracy at a distance.

²⁵ This paper assumes that a number of comprehensive defence-wide initiatives are needed for the DPR to succeed: first, that National Defence will be permitted to divest itself of current realty holdings that no longer directly contribute to defence, so that it may reinvest those funds back into the infrastructure it needs; second, that force planners will be permitted to adjust the other major ‘levers’ of the defence system (readiness and personnel) in developing viable future force options; third, that the so-called ‘Leslie Report’ will be fully implemented, as the means of protecting the viability of the fighting force; fourth, that lasting and effective defence procurement reforms will reduce the impact of defence inflation on purchasing power; and fifth, that a new defence funding model will be adopted, pinned to future growth in GDP over the long term, including as a growing percentage of GDP itself.

²⁶ See Eric Lerhe, *The National Shipbuilding Procurement Strategy, An Update*, Strategic Studies Working Group Paper, CIC/CDFAI, February 2013. Therein, he notes “DND’s audit arm concluded that the built-in-Canada Canadian Patrol Frigate ultimately cost only 7% more (roughly \$28 million per ship) on average than seven other similarly sized foreign warships. That 7% ‘at home’ premium also created over 7,000 person-years of Canadian employment and established at least 12 Canadian companies that are still in business and exporting complex marine systems to such demanding customers as the United States, Israeli and Royal Navies today. That same audit also considered the Canadian frigate the combat superior of every one of the foreign frigates studied save the one that it was ‘only’ the combat equal to.” Moreover, a recent study commissioned by Industry Canada determined that in-service support for a warship acquired offshore would be 25% higher than for one built in Canada – a critical factor, as such costs over the typical warship life-cycle can readily equal 60% or more of the initial purchase cost.

► **About the Author**

Serge Bertrand served in the Canadian Armed Forces for nearly four decades. Before retiring in 2015, he served as an advisor to several successive Commanders of the Royal Canadian Navy. He is also a Fellow with the Canadian Global Affairs Institute.



► **Canadian Global Affairs Institute**

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