Starting Over: The Canadian Navy and Expeditionary Warfare

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The Netherlands Navy's new Air Defence and Command Frigate ***De Zeven Provincien***
Photo credit Jane's Information Group

Daily revelations in the news seem to indicate that the impending Defence Review will result in the creation of a joint expeditionary capability. Such a fundamental shift in rationale could provoke changes in the force structure of the Canadian Navy.

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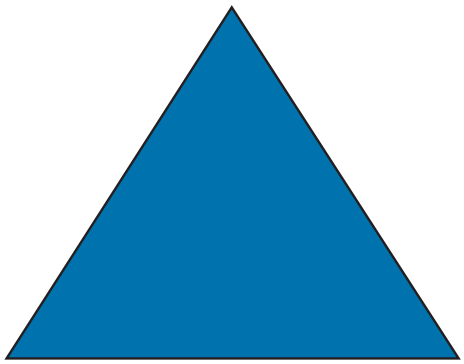
Current Canadian naval capabilities were designed to satisfy the demands of a very different set of defence requirements from those that exist today. To do a proper job of assessing Canadian maritime defence requirements in the new geo-strategic security environment, it is necessary to start over; to go back to first principles and see what capabilities a top-down assessment produces. Fortunately, naval theory is sufficiently well developed to give an indication of the demands that the new policy will make on Canadian naval force structure and Canadian naval history has been adequately documented to indicate what requirements dictated the current fleet. A simple comparison of the new theoretical construct with the current force structure will indicate whether the navy is 'on track' or 'standing into danger.'

Ken Booth's classic triangle shows the three main functional areas of naval activity. The demands of the Cold War, combined with fleet-wide obsolescence, resulted in the Canadian Patrol Frigate (CPF) program and Tribal Update and Modernization Program (TRUMP). The driving force behind both programs was Canadian participation in the US Maritime Strategy, adopted by NATO, which prescribed offensive naval operations inside the high threat environment bounded by the Greenland-Iceland-U.K. Gap. To mitigate costs and enhance performance, several difficult choices were made. Specialization in the escort task, a historical legacy from the RCN, along with improved abilities in screening and patrolling, was chosen as the basis for planning. As long as the geo-political environment was stable, the planning assumptions remained valid and the tradeoffs did not present an insurmountable problem. As we know so well, those days are over.

The TRUMP and CPF programs produced ships that function very well in one or two specialized segments

Figure 1. The Functions of the Navy



Diplomatic Role

i) Preventative Deployments
ii) Coercion
i) Maritime Interception
ii) Peace Support
iii) Non-Combatant Evacuations
iv) Civil-Military Cooperation
v) Symbolic Use
vi) Presence
vii) Humanitarian Assistance
viii) Confidence Building
ix) Track Two Diplomacy

Constabulary Role

i) Sovereignty Patrols
ii) Aid of the Civil Power
iii) Support to OGDs
iv) Search & Rescue
v) Disaster Relief
vi) Oceans Management

Military Role

i) Command of the Sea
ii) Sea Control
iii) Sea Denial
iv) Battlespace Dominance
v) Fleet in Being
vi) Maritime Power Projection
vii) Maritime Manoeuvre

of Booth's military functional area, but give up essential capabilities that would have enhanced their wider military relevance. Especially noteworthy was an abandoned naval fire support capability, vital for many functions in the military role. As well, seaworthy and blessed with high endurance, the frigates are ideal for open-ocean operations but are too large and expensive to operate efficiently in constabulary tasks. To complicate matters, the *Kingston*-class coastal defence vessels have proven to be too slow, small and simply equipped to act as adequate stand-ins. The same limitations also make the destroyers, frigates and coastal defence vessels impractical for maritime interception operations, the diplomatic equivalent of sovereignty patrols in the constabulary role.

Beyond this, the *Iroquois*-class destroyers and *Halifax*-class frigates, obvious hybrids and built on a tight budget, lack the hosting facilities and sheer naval impressiveness to function well in the diplomatic role. A frigate's commander is too junior in rank to compel much notice from foreign navies – only the deployment of a major warship or group of warships rates high-level recognition.

The move to joint expeditionary operations will emphasize further the size deficiencies of Canadian warships. Traditionally, the role of any navy in power projection and manoeuvre warfare is to provide transportation for its sister services, to protect them en route, and to support them in the theatre of operations with firepower, logistics and administrative services. High endurance, seaworthiness and underway replenishment are critical capabilities for creating reach. Responsiveness and reasonable speed during transit are important to ensure timely arrival. Once in the theatre, the naval force will conduct a myriad of tasks, ranging from simple coordination activities to delivering fire support.

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Canadian naval experiences during the Second World War and in Korea showed that the close inshore environment is complex and dangerous. The disastrous amphibious raid on Dieppe underscored the hazards of relying completely on the armed forces of other states for essential support services in a combined operation. The experience of HMCS *Athabaskan*, commanded by Commander R.P. Welland, illustrated the diversity of tasks associated with expeditionary warfare in the littoral zone. In a single patrol *Athabaskan* coordinated landing with Republic of Korea forces, sent parties of her own sailors ashore, bombarded North Korean positions, illuminated night operations with 'Starshell' (night illumination

ordnance), intercepted junks and other small craft, destroyed a radio station with demolitions, and gave medical treatment to both military and civilian casualties.

In his recent book *Naval Strategy and Operations in Narrow Seas*, Milan Vego showed that, far from emphasizing the extreme case of amphibious assault against defended beachheads, traditional naval support roles in expeditionary warfare most commonly involve cover, administrative support and supply operations.[1] These are not departures from history. Rather, they are the usual, but nonetheless essential, roles of naval forces in expeditionary warfare.

Historically, the vessels employed in long-range, expeditionary operations shared a number of common characteristics with vessels used on constabulary patrol and sovereignty protection tasks. High endurance warships existed in a number of different forms, dating back to the Victorian era. Sloops, frigates, cruisers (second-class protected and, later, heavy cruisers) and battle cruisers were all designed and equipped to conduct independent and cooperative operations at long ranges from supporting bases. They were all good sea keepers, had enhanced habitability features, and were extremely well-armed, durable warships. In addition, they carried large numbers of boats of different types and were able to accommodate small parties that were equipped for military operations ashore. Large versions of these ships would routinely conduct underway replenishments with smaller examples of the type.

Domestic patrol vessels, sometimes referred to as cutters or patrol boats, were also high endurance vessels with good sea keeping characteristics and enhanced habitability facilities, including quarters for inspection teams. They also had boats for boarding and landing work. Some later versions were capable of carrying aircraft. In the American context, US Coast Guard cutters were designed for use in naval roles during 'emergency situations.'

The deliberations of the US Navy's General Board in the 1930s paid particular attention to the naval roles of cutters and extensive lists of tasks and supporting employment in all naval roles were enumerated. Among those many naval capabilities considered important was the ability to embark additional armament, including howitzers, for inshore use in support of joint operations. The General Board endorsed a warship of approximately 2,000 tons that emphasized habitability, ruggedness for withstanding the sustained use of high speed in bad weather, and sea kindliness to ensure steadiness as a gun platform. Speed was intentionally traded off by employing simple propulsion systems that saved space and weight for more bunkerage capacity. USCG cutters were built frugally without sacrificing essential characteristics, which were regarded as reliability, sea worthiness and handiness in close quarters. These capabilities have modern-day parallels and should merit consideration in future fleet composition studies.

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Modern trends in maritime traffic density, weapon technology and the development of asymmetric threats all indicate that the littoral zone has broadened and now includes several sub-zones, each with unique challenges and dangers. Wayne Hughes, in his seminal work *Fleet Tactics*, argued, "littoral waters will be the arena of modern fleet actions."[2] He is convinced that the coastal environment will create conditions that will impede scouting efforts and provide opportunities for short-range surprise attacks. In his view, all ships and aircraft employed in the littoral zone will be proportionately more at risk than in home waters or on the open ocean.[3] To compensate for these conditions, he advocates for enhanced scouting abilities, improved command and control systems, and increased weapon ranges. By extension, these same environmental problems can be inferred for inshore naval operations against irregular forces and non-state terrorists.

The types of operations undertaken historically by unconventional forces in attacks on naval forces involve stealth and a suicidal willingness to press an attack to point-blank range. Stealth, by use of camouflage or ruse, tends to act as an anti-scouting measure, reducing the effectiveness of scouting units and own-force command and control systems. Hyper-aggressiveness in the attack will reduce the range advantage of superior weaponry. To compensate for these factors, a larger number of smaller platforms, employing a distributed array of sen-

*The Royal Navy's new **River**-class Offshore Patrol Vessels*
Photo credit Jane's Information Group

sors, are required to counteract the 'all the eggs in one basket' vulnerability of major warships. In addition, defensive firepower must be vastly superior to counteract any enemy advantage in quick-reaction, short-range littoral combat.

A fleet structure optimised for joint expeditionary warfare should be based on two principal types of warships. First, a few large warships should be optimised for the long-range delivery of offensive precision-effects firepower and force area defence. They need not be designed for stealth, as they should be the visible symbols of national maritime power and will operate in essentially open-ocean areas, relatively remote from the dangers of the littoral zone. These large power-projection ships should employ manned aircraft and be capable of accommodating a small contingent of troops equipped for landed operations or boardings. They should also be able to conduct 'top-up' replenishments of other ships of their own size or smaller ones.

The second type of warship should be a simpler, smaller, more manoeuvrable vessel. It must be able to provide relatively short-range, direct fire support to land operations. Due to its use in hazardous environs, it should make optimum use of stealth technology and must be equipped with large numbers of rapid-fire, close-range defensive weapons that are capable of quickly generating devastating stopping power in any quadrant around the ship. The small warship must also be able to accommodate a small landing party for special operations ashore or for inspection visits to vessels. Logic dictates that it also be able to operate remotely piloted vehicles, including undersea surveillance and mine-hunting devices.

Both the large and small warship should be amply endowed with a variety of boats, each of which can be armed. These boats must be able to undertake a wide variety of inspection, patrol, picket, landing and administrative support duties. A number of the weapon, sensor and boat capabilities in the small warship can be modular in nature, allowing the ship to be adapted for different roles in both the expeditionary and constabulary functions. In both roles, the small ship must be both seaworthy and sea kindly, possess high endurance, and be able to integrate into a completely networked system of communications and sensors. In combination, these features would also make the smaller warship ideal for constabulary surveillance duties and training tasks in home waters, while the larger ship would be best used for diplomatic 'flag showing' visits that could involve foreign training cruises.

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Naval command and control in the littoral zone is the most demanding task in joint warfare. Advanced sensors, highly reliable communications, sophisticated information processing systems, and precision weapon systems are needed to assure the safety, coordination and effec-

tiveness of joint operations. These can only be accommodated in a major warship that must not be hazarded by unnecessary inshore excursions. Moreover, the area of naval control must extend all the way to the shoreline and, to exercise this requirement, they must be highly manoeuvrable and, quite frankly, expendable small warships are needed to venture boldly wherever the need arises.

Recent developments in other navies have shown how radical force restructuring is underway to reshape fleets and add new capabilities for expeditionary warfare. Interestingly, these developments also show signs that domestic constabulary capabilities have not been forgotten in the rush to transformational change. The Royal Netherlands Navy will cut the size of its fleet and manpower roughly in half in order to achieve its force-restructuring plan. Four power projection warships of over 6,000 tons, called frigates, will replace former destroyers while a number of new, smaller 3,000-ton warships, also called a frigates, will tackle the inshore expeditionary and domestic constabulary roles. As another example, the Royal Navy's 1,700-ton *River*-class offshore patrol vessels are being modernized with a flight deck capable of receiving small and medium helicopters plus accommodations for Special Forces landing teams, both for use in expeditionary operations. These improvements will also enhance the effectiveness of the *River*-class in their primary constabulary role.

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The Canadian fleet now finds itself in an awkward no-man's-land, composed of warships too small to accommodate the staff, sensors and weapons needed to perform effectively in the outer littoral zone but too large to be risked in the inner littoral zone. If a major Canadian contingent is to be transported for an expeditionary operation, simple geophysical facts will dictate that it most often will travel by sea. To protect it adequately, both while en route and at its destination, and to support it with the necessary services that only naval forces can provide, the force structure of the Canadian Navy will need to be diversified. Vego recommends that a blue-water navy operating in restricted waters should not use surface combatants larger than 2,000 tons.[4]

During testimony by Dr. Richard Gimblett before the Standing Senate Committee on National Security and Defence on 21 February 2005, the Chairman revealed that the Committee is interested in seeing constabulary duties assigned to the navy and recommending the acquisition of cutters for that role. The record of proceedings shows that the Chairman felt the Chief of Maritime Staff had a "lack of enthusiasm for the idea" and "expressed his concern." If his hesitancy is related to a perceived lack of credibility of small warships in expeditionary warfare, naval history and warfare theory both show that many tasks in the inner littoral zone can only be undertaken by small warships. Clearly, a move to expeditionary warfare cannot be accompanied by a 'one-size-fits-all' approach to fleet planning.

The safe assumptions of the past are gone and the price being paid for naval specialization is manifesting itself daily. The new joint expeditionary environment will require a very few large warships to ensure that Canadian authority commands and protects the expeditionary force. A relatively large number of small warships, both surface and subsurface, are required to extend the networked array of naval sensors and weapons about the joint force. This force structure will actually serve Canadian national sovereignty requirements better and at less cost that the current fleet of medium-sized warships and undersized patrol craft. It's time to start over with a new fleet plan; one that provides the flexibility and capability needed to meet the daunting challenges of today and the future.

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Notes

1. Milan Vego, *Naval Strategy and Operations in Narrow Seas* (London: Frank Cass, 2003), p. 269.
2. Wayne Hughes, *Fleet Tactics* (Annapolis, MD: USNI Press, 2000), p. 164.
3. See Ibid., p 292.
4. Vego, *Naval Strategy and Operations in Narrow Seas*, p. 297.