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Canadian Forces Standing Contingency Force: New Roles and New Capabilities for the Navy

By/par LCdr/capc Jamie Tennant

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Abstract

To many Canadian Naval officers, Canadian Forces Transformation, and the emphasis placed on the conduct of Joint operations, really meant that the role of the Navy would be marginalized in the move to place primacy of operations on "getting green to the ground." Taking this further, that this marginalization of the navy's role would eventually result in a reduction in naval capabilities.

One of the three keystone initiatives of Transformation is the introduction of the Standing Contingency Force (SCF) concept. It will be argued that rather than see a reduction in capability, the navy would need to maintain current skill-sets and capabilities in order to support the SCF concept. Further to this, a careful examination of the issue will reveal that the navy would also need to improve on its current war-fighting capabilities as well as acquire a number of new ones in order to ensure that the SCF would be a viable force capable of operating effectively within the complex environment presented by Littoral waters.

Introduction

In 2005, the Chief of Defence Staff (CDS), General Rick Hillier, promulgated his Commander's Planning Guidance on how the Canadian Forces (CF) was to institute his concept of CF *Transformation.*[1] His vision of *Transformation* for the CF of tomorrow was to be all encompassing. His aim was to ensure that the…

> CF will become more effective, relevant, and responsive, and its profile and ability to provide leadership at home and abroad will be increased. The CF will become more effective by better integrating maritime, land, air and special operations forces. It will become more relevant, both at home and abroad, by adapting its capabilities and force structure to deal with threats that arise from international instability, especially in fragile states.[2]

With all of its initiatives, *Transformation* will have impact across the entire spectrum of the Canadian defence organization; from how the CF will be functionally organized to how it attracts and retains new recruits, to how it procures new needed equipment and material. Most importantly, there is a vision on how the CF will conduct operations in the future. From an operational perspective, *Transformation* is about the CF's ability to conduct integrated, joint operations across the three environments of army, navy and air force.

> The operational transformation of the Canadian Forces [CF] will focus on the establishment of new joint organizations and combat structures that can meet the government's expectations for effectiveness, relevance and responsiveness.[3]

The above is to be accomplished by establishing a capability resident within the CF to deploy three types of joint formations; a Special Operations Group (SOG), a Mission Specific Task Force (MSTF), and a Standing Contingency Task Force (SCTF).[4]

When first introduced, the idea of CF *Transformation* was not well received within the rank and file of the Canadian Navy. The initiative was seen as a method of

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[1] Gen R.J. Hillier, "CDS Planning Guidance – CF Transformation," National Defence Headquarters Ottawa: file: 1950-9 (CT), 10 November 2005.

[2] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force: Concept of Operations, Version 3 (draft)*, October 2005, 6.

[3] Canadian American Strategic Review (CASR), "New Canadian Defence Review – Brief Overview of Proposed Force Structure and Procurement Priorities" http://www.sfu.ca/casr/ft-defrev1.htm; Internet; accessed 24 January 2007.

[4] Department of National Defence, "A New Vision for the Canadian Forces," http://www.dnd.ca/site/Reports/dps/main/02_e.asp; Internet; accessed 24 January 2007.
Of note, the word "Task" was subsequently dropped from the name of the Task Group, shortening it to "Standing Contingency Force. Throughout the text of the paper, the force will be referred to as the SCF, although the term SCTF will arise from time-to-time in quoted work.

focussing the attention, and budgetary resources, of the government onto the army. It was thought that this was going to be done at the expense of the other two services. Dr. Richard Gimblett stated;

> Initial reaction to the Canadian Defence Policy Statement (DPS) has been that it is essentially a "pro-Army" document, and as such "bad" for the other services.[5]

Further, from the navy's perspective, many also viewed *Transformation's* emphasis on combat capability, and the SCF, as simply a move to place primacy of operations within the CF on the army, with the other two services re-focussed to getting *green to the ground*.

One has only to examine Canada's 2005 Defence Policy Statement to realize that this is simply not true. An examination of the CDS's three operational themes clearly demonstrate that he does not wish to reduce, or marginalize, any one force to the benefit of another, but rather that his aim is to instil a total force concept that will ensure that each component will "…become more relevant, responsive and effective. They [the CF] will also strengthen their capacity to defend our security, protect our interests, and enhance Canada's role on the world stage."[6] The SCF is envisioned to be one of the key enablers to achieve this goal. As Sir B.H. Liddell Hart wrote "… [a]mphibious flexibility is the greatest strategic asset that a sea power possesses."[7]

This paper will examine the SCF concept as envisioned and examine the roles and capabilities that the navy would be expected to have. This examination will clearly demonstrate that far from reducing the navy's role in future operations, SCF would force the navy to not only maintain its traditional "Blue Water" war-fighting capabilities, but that by also being committed to operating for extended periods of time in the littoral environment,[8] that it would also be required to assume a number of roles not previously held, acquiring new skill sets and new equipment along the way.

In order to provide a framework for discussion, the SCF concept will first be examined. From this, it will be determined what tasks the navy is to be assigned within the SCF construct. Once this has been done, these tasks will be examined in detail to determine if they are being done by the navy today, whether current capability is sufficient or that it needs to be enhanced and, finally, if there are new capabilities that the navy would need to acquire.

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[5] Dr. Richard Gimblett, "Defence Policy Statement: Implications for the Canadian Navy," *Royal Canadian Military Institute: Commentary* (May 2005), [journal on-line]; available from http://www.navy.forces.gc.ca/cms_strat/strat-issues_e.asp?id=306; Internet; accessed 24 March 2007, 1.

[6] Department of National Defence, "2005 Defence Policy Statement: Canada's Maritime Forces," http://www.forces.gc.ca/site/reports/dps/facts/fs_maritime_e.asp; Internet; accessed 26 January 2007.

[7] B.H. Liddell Hart, *Deterrence or Defence: A Fresh Look at the West's Military Position,* (New York: Frederick A. Praeger Publishers, 1960), 128.

[8] Canadian Forces Maritime Warfare Center (CFMWC), Standing Contingency Task Force: Concept of Operations, Version 3 (draft)", October 2005, 7.

Overview of Standing Contingency Force (SCF)

> The SCTF will be capable of rapid deployment for crisis operations in the global littorals. It will provide the GOC [Government of Canada] with a high readiness, rapidly deployable Sea/Air/Land force providing an integrated, expeditionary amphibious combat capability for full spectrum operations in an interagency multinational environment…The SCTF is intended to be the first substantial and visible CF response to an emerging crisis in a littoral.[9]

Although a study of maritime warfare history clearly demonstrates that navies must be able to operate in the littoral environment to project combat power, Normandy, North Africa, Sicily and Guadalcanal being examples from World War II and the Inch'on landing during the Korean War, it is a significant departure from the Cold War era's doctrine and strategy. The fact that the navy has been directed to do so "… represents a radical departure from the Navy's previously stated doctrine and strategy."[10] Although this statement was made in reference to the United States Navy's move toward Littoral operations, it is equally applicable to the Canadian Navy as well.

The SCF is meant to be the CF's means of ensuring that it is able to rapidly respond to both domestic and international situations when directed to do so by the Canadian government. The SCF Concept of Operations (CONOPS) dictates that the SCF will be a self contained unit capable of rapid deployment anywhere in the world. It will be required to be capable of conducting amphibious combat operations in a medium intensity conflict environment for at least 30 days duration.[11] In order to fulfil this role, the SCF is to be comprised of the following core components; an Amphibious Task Group (ATG) with an embedded Maritime Amphibious Unit (MAU), a Naval Task Group (NTG), a Landing Force (LF), an Air Expeditionary Unit (AEU) and various ancillary support units.[12]

In accordance with the SCF CONOPS, the roles and responsibilities that the navy will be expected to provide in order to support the SCF CONOPS are many. They encompass both traditional Canadian navy roles as well as a number of new ones, to include; an amphibious assault capability, protection of forces during transit and once in the Area of Operations (AOO), sea control and denial, naval fire support missions ashore, provision of a MAU for ship-to-shore movement, Very Shallow Water (VSW) mine counter-measures operations and the provision of surface connectors to support operations ashore.[13]

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[9] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force*…, 6-7.

[10] LCDR (USN) Frank J. Murphy, "Littoral Warfare: Adapting to Brown-Water Operations," *Global Security.Org,* (1993); [article on-line]; available from http://www.globalsecurity.org/military/library/report/1993/MFJ.htm; Internet; accessed 24 January 2007, 1.

[11] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force*…, 20.

[12] *Ibid.,* 15.

Amphibious Task Group (ATG)

The ATG is to be made up of two primary units. The first will be an Amphibious Landing Platform (ALP) ship and the second will be a replenishment vessel. From these two platforms, the SCF is to be capable of staging amphibious assaults and conducting sea-based operations as required.

> The SCTF Amphibious Task Group will be capable of projecting a landing force ashore and inland to multiple objectives by aviation and surface connectors in unopposed landing operations. The amphibious capability will consist of an amphibious platform(s) with both helicopter landing sites and surface connector systems.[14]

The largest, and arguably the most expensive component of the SCF concept, would be the procurement by the navy of what General Hillier has described as the "Big Honking Ship";[15] an Amphibious Landing Platform (ALP). The ALP platform of choice has not yet been decided, however, it is envisioned to be similar in capability to either the United States Navy SAN ANTONIO Class or the Netherlands' ROTTERDAM Class.

When the decision is made on which hull, it is envisioned that it will have the capability to transport several hundred troops, their vehicles, supplies and equipment as well as landing craft and aircraft to support the amphibious assault force ashore.[16] The landing battalion is expected to be approximately 777 personnel and 91 vehicles strong.[17] Additionally, the ALP is to contain the capability to provide comprehensive, integrated Command and Control (C2), both at sea and from sea to shore, from which the Commander SCF will be able to conduct all operations, exhibiting the capability to compile a complete Common Operating Picture (COP) across the entire spectrum of operations.

The ALP will bring with it a number of issues; primarily questions of manning, a lack of indigenous amphibious doctrine and the training organization to support an ALP. The crew size of the SAN ANTONIO Class is 396 officers and men[18] and the ROTTERDAM 146 personnel.[19] There is no plan in place to reduce the number of

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[13] *Ibid.*, 17-18.

[14] *Ibid.*, 18.

[15] David McDonough, "Defence Policy Statement and its Vision of Expeditionary Capabilities," *Royal Canadian Military Institute: Commentary* (May 2005) [journal on-line]; available from http://www.navy.forces.gc.ca/cms_strat/strat-issues_e.asp?id=306; Internet; accessed 24 March 2007.

[16] Colonel (Ret'd) B.K. Wentzell, "Reflections on the Canadian Amphibious Task Force" *Canadian Naval Review* Vol. 2 No. 4 (Winter 2007): 15.

[17] *Ibid.,* 16.

[18] Military Analysis Network: US Navy Ships, "LPD-17 SAN ANTONIO-Class (formerly LX Class," http://www.fas.org/man/dod-101/sys/ship/lpd-17.htm; Internet; accessed 22 March 2007.

[19] AMI International. "Netherlands – Rotterdam Class Landing Platform, Dock (LPD)," http://www.amiinter.com/samples/netherlands/NL3301.html; Internet; accessed 22 March 2007.

current platforms to specifically provide the crew necessary to man up a ship of this size. Having said this, the navy is in the process of deciding on how to best replace its area-air defence capability that will be lost as the TRIBAL Class destroyers (DDH) are phased out of service. If the decision is made to not replace them, but to go to the Single Class Surface Combatant (SCSC), this could provide the needed personnel.

Acquisition of the ALP would bring with it the requirement to conduct and implement Amphibious Warfare Doctrine and training. Again, having not conducted amphibious operations since Korea, doctrine would have to be developed. Doctrine could be initially borrowed from elsewhere, such as the United States Navy, the Royal Navy or the Netherlands, all of whom currently have an amphibious capability. The Canadian Forces Maritime Warfare Centre (CFMWC) should be the lead agency tasked to develop and incorporate purely Canadian amphibious doctrine into our war-fighting publications. Once CFMWC has done this, the navy's operations school (Canadian Forces Naval Operations School – CFNOS) and engineering school (Canadian Forces Naval Engineering School – CFNES) would then be able to develop and incorporate the requisite training where required.

As stated, the SCF is to have an organic capability to deploy and sustain a task force of a size sufficient to conduct across-the-beach operations with both light and heavy forces, their equipment and stores. They must also be capable of maintaining the operational tempo for a typical deployment of 30 days duration. After 30 days, follow-on forces should be ready to replace the SCF force in-theatre. Sea-based operations will be a new CONOPs for the CF. Although not as comprehensive in nature as the USN's Sea Basing concept,[20] it would be a significant increase in operational capability for the navy and army.

> In the Canadian context, seabasing is the use of the SCTF ATG for both command and control of operations, and to carry the support for and conduct the resupply of the SCTF. This includes an ability to conduct sustainment and reconstitution operations at sea, over the shore and by air as dictated by the situation.[21]

A PRESERVER Class supply ship was tasked to support operations in Somalia; however, the ship was not used in a sea-based operational capacity similar to that envisioned for the SCF. Throughout the Somalia mission, the ship was utilized to fulfil two primary roles. The first was as an in-theatre rest and relaxation location for land troops and the second as a base of operations for Sea King helicopter support to land missions ashore. However, there was no land operation staging from the ship, nor was there an existing command and control capability available to support the mission.

The navy has long maintained a capability to Replenish At Sea (RAS) fuel, food and parts in order to conduct maritime operations over extended distances for extended periods of time. The concept of sea-based operations in support of land forces is an

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[20] Admiral Vern Clark, "Sea power 21: Projecting Decisive joint Capabilities," *US Naval Institute Proceedings,* Vol 128/10/1, 196 (October 2002), 36-37**.**

[21] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force*…, 4.

expansion of this traditional role. The replacement of the current supply ships with the new Joint Support Ship (JSS) will greatly enhance the navy's capability to support the SCF. Designed to provide greater solid cargo transport space, it would be able to complement the ALP in bringing all of the material necessary to sustain the SCF land forces as required. [22] Increased cooperation between the navy and army would ensure that effective sea-based doctrine and procedures were developed and utilized in order to fully exploit the capabilities and advantages of the JSS.

It goes without saying that the acquisition of an ALP would be a new, and significant increase, in capability for the Canadian Navy. Along with this, the continued procurement of the JSS is critical to the navy's capability to meet the land force's material requirements. The implementation of the SCF and its design to conduct sea-based operations would further add to the potential roles, tasks and missions of the JSS.

Force Protection in Transit and in the Littorals

> In military terms, the littoral is a coastal region consisting of the seaward area from the open ocean to the shore that must be controlled to support operations ashore, and the landward area inland from the shore that can be supported and defended directly from the sea. Control of the area in the littorals is often essential to dimensional superiority. In the case of the SCTF, this is the space in which the forces can influence in accordance with the mission and the threat. The size and area of the littoral will vary from mission to mission.[23]

An NTG would always be assigned to provide force protection for the ATG during transit to and from the operational area. Even though acknowledging that the most likely maritime battlefield of the future will be located in the littorals, it still remains true that in order to get the ATG to the fight, there will be oceans that will need to be crossed. It cannot be assumed that all of this ocean will be friendly territory and without any threat.

Although the end of the Cold War has removed the Soviet deep ocean navy as a current threat, over the past twenty years there has been a significant proliferation of maritime equipment and weaponry to developing countries around the world. This has been particularly true of conventional submarine sales from the former Soviet Union. As early as 1994, over twenty countries were operating more than one hundred and fifty diesel attack submarines.[24] By the year 2000, these numbers had increased to forty-six

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[22] Department of National Defence, *Joint Support Ship: Statement of Operational Requirement, Project 00002673, Version 4.0,* (Ottawa: Project Management Office Joint Support Ship, 2006), 14. The JSS SOR calls for the ship to be able to provide between 1000 – 1500 lane meters of internal stowage for CF vehicles and equipment and have a landing craft capable of transporting between 20 – 30 tonnes per lift.

[23] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force…*, 4.

[24] Daniel J. Revelle and Lora Lumpe, "Third World Submarines," *Scientific American* (August 1994) [journal on-line]; available from http://www.fas.org/asmp/library/articles/sub.htm; Internet; accessed 22 March 2007: 16.

countries and over six hundred submarines around the world.[25] Additionally, more and more countries have been acquiring a credible anti-surface missile capability that is capable of long range attack; threats that reach far outside of territorial or coastal waters. The implication of this is clear; conflict outside of the littoral environment is still very much a possibility in today's maritime environment.

The ATG, as the Mission Essential Units (MEUs), would need to be protected from these threats. In order to meet these threats, the navy must maintain its core capabilities in the traditional warfare areas of Anti-Submarine Warfare (ASW), Anti-Air Warfare (AAW), Anti-Surface Warfare (ASuW). These capabilities are absolutely essential to fulfilling tasks assigned within the SCF concept. In order to maintain these capabilities and fulfil the SCF mandate of ATG protection, the navy will be required to update the Frigates (FFH) as well as come to a decision on the way ahead in providing an organic area air-defence capability once the Destroyers come to the end of their operating life.

Once through the "Blue Water," or open ocean, and to the AOO, the SCF will find itself operating in the Littorals for extended periods of time, with the NTG continuing in its task of providing force protection to the ATG. This will require the NTG to shift from open ocean sea control to restricted "Brown Water," or littoral, operations which "actually increases the dangers to fleet units,"[26] demanding that the NTG be more robust and capable in a number of warfare areas. For the same reasons that support maintenance of the traditional war-fighting capabilities of AAW, ASuW and ASW in order to support of "Blue Water" operations, the same arguments apply equally, if not more so, to operating in the Littorals. When operating in or around the Littorals, reaction times from initial detection to engagement, in any of these three environments, will necessarily be dramatically reduced.

Operations inside of the Littorals demand that force protection measures for the ATG be taken not only in consideration of the symmetric threats already articulated, but also in consideration of the potential asymmetric environment. Be it hand-held guided missile systems fired from small vessels, Fires from ashore, small boat swarm attacks that suddenly depart the shoreline, or difficult to detect conventional diesel submarines operating in the difficult acoustic conditions prevalent within the littorals, the advantage will pass to the enemy. Combined with the symmetric environment, these threats ensure that there will be a "…continuing need for a well-balanced combat-capable fleet…"[27] In order to maintain the well balanced fleet necessary to protect the ATG, the navy will have to maintain current warfare capability as well as acquire additional capability that is specifically targeted to operations within the littoral. To this end, the navy will need to continue the progression of the Frigate Equipment Life Extension (FELEX) programme.

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[25] Paul Mitchell, "Submarines and Peacekeeping," J*ournal of Military and Strategic Studies,* Vol. 3, Issue 1 (Spring 2000) [journal on-line]; available from http://www.ciaonet.org/olj/jmss/jmss_2000/v3n1/jmss_v3n1c.html; Internet; accessed 22 March 2007, 1.

[26] Gimblett, *Defence Policy Statement*…, 3.

[27] *Ibid.*, 2.

From a combat capability perspective, FELEX is a complete up-grade programme that will meet the needs of both open ocean and littoral-water requirements across the warfare spectrum. FELEX will see modernization of the Command and Control system, self-defence weapons systems (to both the main gun and the point defence missile system) as well as capability to exploit the offensive land attack capability of the Harpoon missile system. Defensive systems such as electronic detection, infrared search and track, and automated on-board decoys will also be installed or up-graded as part of the project.[28] Combined, the enhanced capability that the Frigates will receive as a result of the FELEX project will meet the challenges of supporting SCF operations enroute to, and during, littoral operations in both a symmetric and asymmetric threat environment.

Littoral Water Force Protection

The navy has operated in a littoral environment throughout the 20th century. In each of the various conflicts Canada has been involved in; World Wars I and II and the Korean War, it has taken part in surface engagements at sea, amphibious assaults and landings as well as conducted countless Naval Gunfire Support (NGFS) operations. However, as it has already been noted, the end of the Cold War saw a marked decrease in emphasis on traditional *Blue Water* naval warfare. The focus of recent operations, from the first Gulf War through to the present, has been on the conduct of Maritime Interdiction Operations (MIO) and Leadership Interdiction Operations (LIO). The doctrine required to conduct these two types of operations are now entrenched within current naval publications.[29] However, although these procedures deal with own unit force protection while operating in a littoral environment, they do not deal with multiple unit force protection, such as defence of an ATG.

The Canadian navy conducted a significant number of escort operations of both military and civilian commercial vessels transiting through the Strait of Hormuz during OP APOLLO, and therefore has considered and developed multi-unit force protection techniques. However, these protection techniques and tactics are for use with a fairly mobile force transiting through an operating area of relative small size. As a matter of routine, the navy did not practice, nor execute, force protection operations in support of a force that was operating in and remaining relatively fixed for extended periods of time within the littoral environment. Accordingly, new Standard Operating Procedures (SOPs) are required to provide adequate force protection within the littoral which will need to be developed, tested, understood and the entrenched within future operating doctrine prior to the SCF deploying on any mission.

Submarine Warfare

In order to effectively operate within the Littorals, the NTG must be able to enforce a measure of Sea Control and Sea Denial to the enemy. The NTG would be greatly enhanced in its ability to do this by the presence of a Canadian submarine. As a

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[28] Department of National Defence, "Project Management Office: Frigate Life Extension," http://www.forces.gc.ca/admmat/dgmepm/pmofelex/halifax_e.asp; Internet; accessed 24 March 2007.

[29] CFCD 102 is the Canadian Navy's Keystone Operational doctrine publication. It serves as the reference publication for the development and implementation of all current naval Tactics, Techniques and Procedures (TTPs).

force multiplier and enabler, the VICTORIA Class diesel submarine provides a distinct capability when operating in the Littoral environment.

There is much that a diesel submarine can add, both offensively and defensively, when operating in the Littoral environment that it cannot do as effectively in "Blue Water". Offensively, it can be employed in a traditional Indirect Support role, whereby it will pre-position itself to provide Indicating and Warning (I&W) within the area of operations, a role Canadian submarines filled throughout the Cold War. The submarine can also be used offensively in a number of other ways that would have direct impact on SCF operations. The first role would be in Direct Support to Special Operations Forces (SOF). Insertion of SOF from a submarine to provide I&W or conduct pre-amphibious assault operations such as beach landing zone preparation and identification is a role that the navy's diesel submarines are ideally suited for. Diesel submarines are extremely quiet and difficult to detect in ideal oceanographic conditions. In the poor conditions prevalent in the Littorals, they are even more difficult to detect, making them an ideal covert operations delivery method.

A diesel submarine could also be utilized in a force protection role within the Littorals, with its principle task in this regard being to conduct area sub-surface sanitization operations to ensure that it is clear of opposing force submarines. Failing to prove an area is clear, it could be tasked to establish and maintain positive contact with the opposing submarine. In order to do this effectively, any submarine employed in this manner must be capable of going everywhere within the area, including shallow water.[30]

> Far from providing a pretext to be rid of the unfairly-maligned Victoria-class, the DPS foresees an expanded role for precisely that type of diesel submarine, not just as part of the general force protection described above, but as essential to expanded CF special operations capabilities.[31]

All of the roles that have been discussed are well within the capabilities of Canada's VICTORIA class submarine. Integration of the submarine into the SCF NTG in order to execute these roles would provide Canada's submarine force with a viable and credible *raison d'être* and place increased emphasis on maintaining a submarine service within the navy.

Naval Gun Fire Support (NGFS)

> Although not a naval warfare function *per se,* naval shore fire support (NSFS) is a key component of littoral operations and needs to be addressed. Supporting Marines ashore from naval ships is a critical priority for the Corps

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[30] Paul Mitchell, "Submarines and Peacekeeping," J*ournal of Military and Strategic Studies,* Vol. 3, Issue 1 (Spring 2000) [journal on-line]; available from http://www.ciaonet.org/olj/jmss/jmss_2000/v3n1/jmss_v3n1c.html; Internet; accessed 22 March 2007, 6.

[31] Gimblett, *Defence Policy Statement*…, 3.

> and the Navy given the likelihood of future involvement in Third-World operations in the littoral environment.[32]

Although the statement above is speaking directly to USN requirements to provide a Naval Gun Fire Support (NGFS) capability in support of US land operations within the Littorals, it is equally applicable to any Canadian amphibious operation undertaken.

During the Korean War, the Canadian Navy was actively involved in the conduct of precision fire support ashore, notably as a participant in the "Train Busting" campaign designed to disrupt North Korean supply routes to the south.[33] Naval Gunfire Support (NGFS) had been a core component of naval capability within the navy for years. However, when the last Canadian warship to have optical gun sights was de-commissioned in 1997, the Canadian navy's two remaining platforms were the TRIBAL Class Destroyers and the HALIFAX Class Frigates.[34] With this, the navy had "abandoned naval fire support capability, vital for many functions in the military role."[35] NGFS, however, is considered a key component of littoral warfare and expeditionary operations staged from the sea. According to USN Admiral Frank Kelso, who was their Chief of Naval Operations, "…events in the Persian Gulf have graphically demonstrated the need to make quantum improvements in naval gunfire support."[36] As such, the SCF CONOPs calls for the NTG to be able of providing precision, long range NGFS when required in order to support land force elements ashore.

In order to meet the SCF mandate, and provide supporting Fires to operations ashore, the navy would have to re-introduce an NGFS capability to its weapons systems. In order for the Canadian navy to re-insert this, a number of issues would need to be addressed. First, the navy would need to re-introduce the NGFS concept back into naval doctrine. Second, current gun weapon systems would need to be upgraded to provide NGFS capability and, thirdly, the NGFS skill-set would need to be re-introduced into the training of surface warfare officers and non-commissioned members. The requirement to provide long-range precision fire support indicates that there would also be an indirect

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[32] LCDR (USN) Frank J. Murphy, "Littoral Warfare: Adapting to Brown-Water Operations," *Global Security.Org,* (1993); [article on-line]; available from http://www.globalsecurity.org/military/library/report/1993/MFJ.htm; Internet; accessed 24 January 2007, 6.

[33] Department of National Defence, *Canada and the Korean War,* (Montreal: Art Global, 2002), 123.

[34] HMCS TERRA NOVA, the last of the Improved Restigouche Class (IRE) warships, was de-commissioned, 11 July 1997. Until it was de-commissioned, RESTIGOUCHE had been the last Canadian warship fitted with an optical gun site. An optical gun site allowed for the ship to assess accuracy of fire and make corrections to lines of fire when conducting NGFS on shore positions and targets. Without an optical gun site fitted, NGFS was not assessed to be a gunnery capability within the TRIBAL or HALIFAX class ships.

[35] Commander Kenneth P. Hansen, "Starting Over: The Canadian Navy and Expeditionary Warfare," *Canadian Naval Review,* Vol. 1, No. 1 (Spring 2005): 21.

[36] Murphy, *Littoral Warfare: Adapting*…, 6.

fire component to the NGFS. In order to incorporate this capability into naval NGFS, training with Forward Observer Officers (FOOs) from the army would be required to re-establish effective tactics, techniques and procedures (TTPs).

With being once again required to assume NGFS capability and missions as part of being able to meet SCF mission tasks, it has again been demonstrated that far from minimizing naval requirements, SCF would require the navy to expand capability, and in doing so, providing justification for future weapon system enhancement and improvements.

Maritime Amphibious Unit (MAU)

> This [the MAU] is an integrated unit forming part of the Amphibious Task Group (ATG) and responsible for surface ship-to-shore planning and co-ordination, surface connector operations, and naval beach party operations.[37]

Along with the new Amphibious Assault Ship, the requirement to develop a capability to support amphibious operations through sea-based enablers becomes paramount. Chief among these capabilities is support craft, be it for landing personnel, landing equipment and material or in support of force protection.

Operation of small boats is not a new skill set for the navy. It has always operated small boats; however, the types of craft that the navy would be required to operate would change dramatically. In addition to operating zodiacs (soft and rigid hulled variants), the ALP would be required to operate troop landing craft and support landing craft capable of putting the army's vehicles ashore. The size of these new craft would necessarily be much larger than the current boats operated off of current naval platforms and would, in all probability, have much larger crew requirements. One type of landing craft that could be considered is the high speed Landing Craft – Air Cushion or LCAC, currently in service with the United States Navy.[38] As well, it would be expected that this ship-to-shore shore support capability could be maintained at a 24/7 level throughout any operation.

To address this issue, the SCF CONOPS includes provision for the formation of a Maritime Amphibious Unit (MAU).[39] The MAU would be tasked with supporting a variety of operations, including; ship to shore movement for land forces; beach entry (via landing craft and maritime helicopter insertion), and; the provision of surface connectors to provide continuing support to operations once a landing has occurred. The formation of a MAU within the navy, once its core capabilities and requirements are determined and acquired, would constitute a significant increase in naval capability. Further, the formation of the MAU would occur as a direct result of the navy striving to meet the SCF requirements; again demonstrating that the navy would be called upon to provide more, not less, maritime capability within the SCF concept.

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[37] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force*…, 4.

[38] United States Navy Fact File, "Landing Craft, Air Cushioned – LCAC," http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=1500&ct=4; Internet; accessed 30 March 2007.

[39] Canadian Forces Maritime Warfare Center (CFMWC), *Standing Contingency Task Force*…, 15.

Very Shallow Water (VSW) Mine Counter-Measure Capability

> Mine warfare, and in particular, mine countermeasures (MCM), is an integral part of amphibious warfare and therefore, plays a critical role in littoral warfare. Experiences in peacetime crisis, regional conflicts, and global wars have taught us that mines present a formidable threat to our ability to achieve and maintain sea control and project power. The threat is amplified in the littoral battlespace.[40]

Operating within the Littorals will re-introduce a threat that the navy has not had to deal with to any great extent since the first Gulf War; underwater mines. During the first Gulf War, USN ships routinely operated in the vicinity of mine danger areas, resulting in two of their ships suffering damage from mine strikes.[41] Canadian warships, however, primarily operated outside of the mine danger areas. This could change with deployment of the SCF into waters where the threat of mine attack could be present. "The sea mine – perhaps the lowest tech weapon of anti-access weaponry – has become one of the world's most proliferated weapons (small arms being the most proliferated)."[42]

Any task group required to operate in, or around, the Littorals needs to have an organic mine counter-measure capability at all times. There are two components to this capability; first a mine detection capability and secondly, a mine disposal capability. Without MCM capability, it would be impossible for the SCF to operate inshore with any degree of security. Along with the probable loss of life associated with a mine strike, the political cost to the government for the loss of even one escort vessel during an operation would be extremely high.

Looking first at mine detection, the navy currently has only a limited detection capability, which is found only in the Maritime Coastal Defence Vessels (MCDVs). The MCDVs are fitted with a side-scan Sonar capable of conducting route survey operations.[43] There is also a new remote mine hunting capability being brought into service that will enhance littoral MCM capability. Defence Research and Development Canada (DRDC) has developed the DRDC Remote Minehunting System (RMS) which is in use on the MCDVs on a limited, interim basis, but will be fully operational in the fleet

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[40] Murphy, *Littoral Warfare: Adapting*…, 7.

[41] Stephen Willingham, "Navy Mine Warfare Blueprint Proffers 'Innovator's Dilemma'," *National Defense* (January, 2001) [journal on-line]; available from http://www.nationaldefensemagazine.org/issues/2001/Jan/Navy_Mine.htm; Internet; accessed 30 March 2007.

[42] Thomas R. Bernitt and Sam J. Tangredi, "Mine Warfare and globalization: Low-Tech Warfare in a High-Tech World," in *Globalization and Maritime Power,* ed. Sam J. Tangredi, 389-404 (Washington, D.C.: National Defence University, U.S. Government Printing Office, 2002), 401.

[43] Hazel Gray Organization, "Kingston Class (MM) Maritime Coastal Defence Vessel," http://www.hazegray.org/navhist/canada/current/kingston; Internet; accessed 24 March 2007.

by 2010 with the purchase of two complete RMS systems.[44] The RMS, however, is only a detection and classification system. Mine clearance operations are not within this system's capability.

Within the realm of underwater mine clearance and disposal, the MCDVs also have some capability. Unfortunately it is only in deep water mine-hunting, having a deep-sea mechanical minesweeping system module that can be embarked when required. The MCDV possesses no similar shallow water mine-sweeping capability. It is currently the responsibility of the Naval Clearance Diver trade for (among their many other tasks), underwater search, mine countermeasure and mine disposal operations.[45]

Deployment of the SCF TG would require that clearance diving teams deploy as an integral part of this group, prepared to conduct intensive operations to prepare off-beach areas for landings and surface unit operations. This sort of labour intensive mine clearance capability is sufficient for small areas, however it is impractical to expect manual mine disposal over large areas. As well, the issue of operation within waters too shallow for even the shallow-draught MCM vessel to operate must be addressed. One option to resolve this issue is to consider a two pronged approach to the problem: first, the acquisition of an onboard VSW sweep capability and, secondly, the purchase of remote mine disposal vehicles. Another, more costly approach would be the replacement of the current MCDVs with a more modern MCM vessel capable of operating in extreme shallows, with an up-to-date mine hunting and mine disposal capability.

In either case, in order for the navy to meet SCF force protection requirements from a counter-mine perspective, it would be required not only to maintain its current MCM capability, but also become even more modern, robust and capable.

Conclusion

Overall command of the SCF could have gone to the army, however, this the CDS placed this responsibility on the navy. That this occurred is a clear signal to the navy, and the CF in general, that the contribution that the navy would make to the success of SCF operations is critical. Throughout this paper, the various roles and missions that the navy has been tasked with have been examined. This examination has repeatedly shown that the SCF concept hinges on the ability of the navy to provide critical capability in a number of key areas. New capabilities would need to be added, such as acquisition of an ALP and the creation of new supporting components such as the MAU. As well, capabilities such as NGFS, would have to be resurrected. Together, the navy would receive robust new capabilities, but would also have to meet the challenges of manning new ships, enhancing weapons systems and developing and instructing new tactics and doctrine.

An examination of the SCF CONOPs has also demonstrated that the navy would have to maintain its current warfare capabilities if it is going to successfully meet its SCF

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[44] Defence Research and Development Canada, "DRDC Remote Minehunting System Joins the Navy," http://www.drdc-rddc.gc.ca/newsevents/spotlight/0508_e.asp; Internet; accessed 24 March 2007.

[45] Department of National Defence, A-PD-055-002/PP-002 *Canadian Forces manual of Non-Commissioned Member's Occupation Specifications for Clearance Diver (CL Diver),* (Ottawa: DND Canada, 1 November 2004), 1-2.

mandate. Further to this, it has been shown that the AAW, ASuW, ASW and MCM warfare capabilities already resident within the navy would need to be improved upon in order to operate successfully within the complex Littoral environment that the SCF plans to be operating in. These issues must be addressed, and are, through such upgrade programmes as FELEX for the Frigates, and the continued research and development initiatives by industry and the CF's own research and development organization, DRDC Canada.

CF *Transformation* has called for a more effective, relevant and responsive CF. The SCF was designed to be a cornerstone in the CF's ability to provide this capability. Rather than SCF causing a marginalization of the navy and its capabilities, it has been clearly demonstrated that the navy is critical to its effectiveness. Far from being a "pro-army" force and "bad" for the navy, implementation of the SCF CONOPs would, in fact, be "good" for the navy; requiring it to not only maintain current skill-sets and capabilities, but also to be ready to accept a number of equally, if not more so, demanding ones.

Bibliography

AMI International. "Netherlands – Rotterdam Class Landing Platform, Dock (LPD)." http://www.amiinter.com/samples/netherlands/NL3301.html; Internet; accessed 22 March 2007.

Bernitt, Thomas R. and Sam J. Tangredi. "Mine Warfare and Globalization: Low-Tech Warfare in a High-Tech World." Chap. 20 in *Globalization and Maritime Power.* Edited by Sam J. Tangredi. Washington, D.C.: National Defence University, U.S. Government Printing Office, 2002.

Bradford, Major R.D. "An Amphibious Task Group for the SCTF." *Canadian Naval Review,* Vol. 2, No. 2 (Summer 2006): 16-19.

Canada. Department of National Defence. "A New Vision for the Canadian Forces." http://www.dnd.ca/site/Reports/dps/main/02_e.asp; Internet; accessed 24 January 2007.

Canada. Department of National Defence. "2005 Defence Policy Statement: Canada's Maritime Forces." http://www.forces.gc.ca/site/reports/dps/facts/fs_maritime_e.asp; Internet; accessed 26 January 2007.

Canada. Department of National Defence. A-PD-055-002/PP-002 *Canadian Forces Manual of Non-Commissioned Member's Occupation Specifications for Clearance Diver (CL Diver).* Ottawa: DND Canada, 2004.

Canada. Department of National Defence. *Canada and the Korean War.* Montreal: Art Global, 2002.

Canada. Department of National Defence. *Naval Diving: Operational Concept of Employment (OCE)*. Ottawa: DND Canada, 2004.

Canada. Department of National Defence. *Joint Support Ship: Statement of Operational Requirement, Project 00002673, Version 4.0.* Ottawa: Project Management Office Joint Support Ship, 2006.

Canada. Department of National Defence. "Project Management Office: Frigate Life Extension." http://www.forces.gc.ca/admmat/dgmepm/pmofelex/halifax_e.asp; Internet; accessed 24 March 2007.

Canadian American Strategic Review (CASR). "New Canadian Defence Review – Brief Overview of Proposed Force Structure and Procurement Priorities." http://www.sfu.ca/casr/ft-defrev1.htm; Internet; accessed 24 January 2007.

Canadian Forces Maritime Warfare Center (CFMWC), "Standing Contingency Task Force: Concept of Operations, Version 3 (draft)." October 2005.

Clark, Admiral (USN) Vern. "Sea Power 21: Projecting Decisive joint Capabilities." *US Naval Institute Proceedings.* Vol 128/10/1, 196 (October 2002), 32-41.

Defence Research and Development Canada. "DRDC Remote Minehunting System Joins the Navy." http://www.drdc-rddc.gc.ca/newsevents/spotlight/0508_e.asp; Internet; accessed 24 March 2007.

Gimlett, Dr. Richard. "Defence Policy Statement: Implications for the Canadian Navy." *Royal Canadian Military Institute: Commentary* (May 2005). Journal on-line; available from http://www.navy.forces.gc.ca/cms_strat/strat-issues_e.asp?id=306; Internet; accessed 24 March 2007.

Hansen, Commander Kenneth P. "Starting Over: The Canadian Navy and Expeditionary Warfare." *Canadian Naval Review,* Vol. 1, No. 1 (Spring 2005): 20-24.

Hazel Gray Organization. "Kingston Class (MM) Maritime Coastal Defence Vessel." http://www.hazegray.org/navhist/canada/current/kingston/; Internet; accessed 24 March 2007.

Hillier, Gen R.J. "CDS Planning Guidance – CF Transformation." National Defence Headquarters Ottawa: file: 1950-9 (CT), 10 November 2005.

Liddell Hart, B.H., Sir. *Deterrence or Defence: A Fresh Look at the West's Military Position.* New York: Frederick A. Praeger Publishers, 1960.

McDonough, David. "Defence Policy Statement and its Vision of Expeditionary Capabilities." *Royal Canadian Military Institute: Commentary* (May 2005). Journal on-line; available from http://www.navy.forces.gc.ca/cms_strat/strat-issues_e.asp?id=306; Internet; accessed 24 March 2007.

Military Analysis Network. US Navy Ships. "LPD-17 SAN ANTONIO-Class (formerly LX Class." http://www.fas.org/man/dod-101/sys/ship/lpd-17.htm; Internet; accessed 22 March 2007.

Mitchell, Paul. "Submarines and Peacekeeping." J*ournal of Military and Strategic Studies,* Vol. 3, Issue 1 (Spring 2000). Journal on-line; available from http://www.ciaonet.org/olj/jmss/jmss_2000/v3n1/jmss_v3n1c.html; Internet; accessed 22 March 2007.

Murphy, LCDR (USN) Frank J. "Littoral Warfare: Adapting to Brown-Water Operations." *Global Security.Org,* (1993). Article on-line; available from http://www.globalsecurity.org/military/library/report/1993/MFJ.htm; Internet; accessed 24 January 2007.

Revelle, Daniel J. and Lora Lumpe. "Third World Submarines." *Scientific American* (August 1994) [journal on-line]; available from http://www.fas.org/asmp/library/articles/sub.htm; Internet; accessed 22 March 2007, 16-21.

Wentzall, Colonel (Ret'd) B.K. "Reflections on the Canadian Amphibious Task Force." *Canadian Naval Review* Vol. 2 No. 4 (Winter 2007): 14-18.

Willingham, Stephen. "Navy Mine Warfare Blueprint Proffers 'Innovator's Dilemma'." *National Defense* (January, 2001). Journal on-line; available from http://www.nationaldefensemagazine.org/issues/2001/Jan/Navy_Mine.htm; Internet; accessed 30 March 2007.

United States. United States Navy Fact File. "Landing Craft, Air Cushioned – LCAC." http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=1500&ct=4; Internet; accessed 30 March 2007.