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A VIABLE FLEET FOR THE FUTURE

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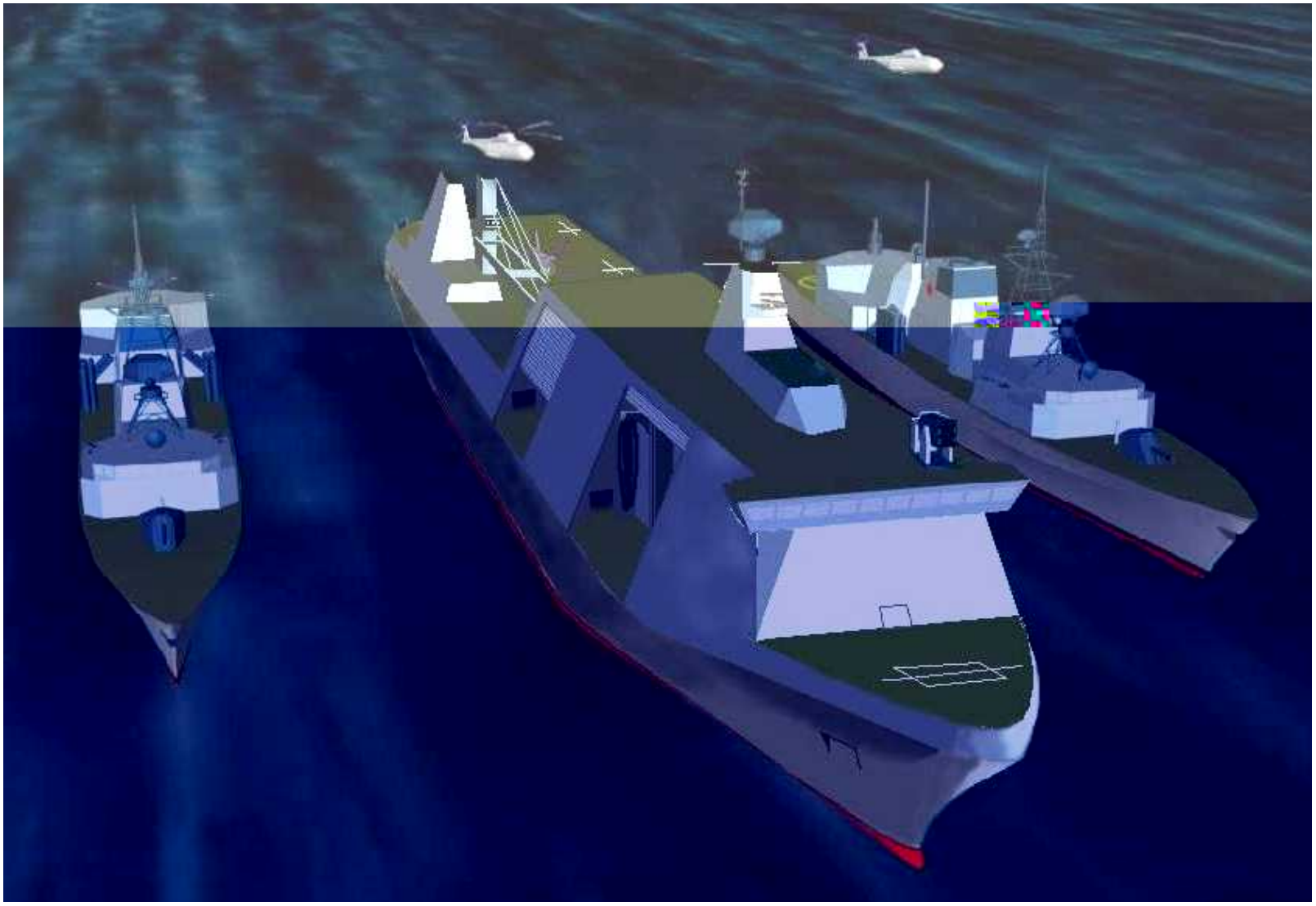
Abstract

The thesis of this paper is that the Canadian navy must submit one platform proposal that accommodates as many capabilities as possible. To support this argument, the author explains how it is unlikely that both of the ALSC and CADRE projects will be approved due to the fiscal realities of Canadian defence. The author then examines the capabilities required for the navy as detailed in *Leadmark* and determines which of those capabilities the Canadian navy requires and can afford. A comparison of CADRE and ALSC is done to determine which platform is best suited to accommodate those capabilities the Canadian navy needs. It is determined that ALSC is the project that should be submitted for governmental approval as it provides Canada with a true multi-purpose ship. The author further determines that the ALSC project should include six ships all with C4ISR, Sustainment, and Sealift capabilities and an Evolved Sea Sparrow Missile system for self-defence. The new ALSC ships would then be capable of fulfilling the roles currently assigned to the Iroquois and Protecteur classes as well as a number of other roles such as Humanitarian assistance and transporting the majority of the land vanguard's equipment.

A VIABLE FLEET FOR THE FUTURE

** A glossary of acronyms used in this paper is listed in the following page.



GLOSSARY OF ACRONYMS

AAD – Area Air Defence

ALSC – Afloat Logistics Sealift Capability

CADRE – Command and Control and Area Air Defence Replacement

CF – Canadian Forces

CBC TV - Canadian Broadcasting Company Television

C4ISR – Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance

C2 – Command and Control

C3 – Command, Control, and Communications

ESSM – Evolved Sea Sparrow Missile

JTF2 – Joint Task Force 2

NATO – North Atlantic Treaty Organisation

NEO – Non-combatant Evacuation Operations

NFS – Naval Fire Support

OOTW – operations Other Than War

SNFL – Standing Naval Force Atlantic

TBMD – Theatre Ballistic Missile Defence

UWW – Under Water Warfare

U.K. – United Kingdom

U.N. – United Nations

U.S. – United States

USN – United States Navy

"… [W]e need to rationalize our precious defence dollars as never before. In particular, we need to make some difficult choices. The objective of these choices must be to identify those military roles and technologies which will make the most sense for Canada's domestic security requirements while maintaining the ability to field a credible contribution to international forces…"[1]

Very shortly the leadership of the Canadian navy will present its proposal for the fleet of the future, seeking approval from the Government of Canada just as their naval predecessors had done in 1909, 1919, 1945, 1964, and 1984.[2] With this forthcoming submission the Canadian navy is once again approaching a critical decision point with regards to the future direction of the fleet and indeed the navy itself. The common theme within each of these past submissions was that the navy had requested a fleet that was too expensive for the Canadian public and therefore difficult for politicians to approve. As a result the proposals were either rejected or significantly modified.[3] Today's naval leadership must take into account the lessons learned from their predecessors and not submit a fleet plan that is too expensive and therefore subject to rejection or modification. This however, does not appear to be the case to date.

The reason for the approaching critical decision point is because two of the five major Canadian naval platforms, the Iroquois and Protecteur ship classes, will reach the end of their projected lives by 2010.[4] An additional drain on the defence budget will be that the Halifax class ships and the Victoria class submarines will be due for a mid-life upgrade in the latter half of the decade. In preparation for this decade of change the leadership of the navy has produced a document entitled *Leadmark: The Navy's Strategy for 2020*, hereinafter referred to as *Leadmark*.

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[1] Peter Jones, "Toward a new Balance for the Canadian Forces." Canadian Gunboat Diplomacy: The Canadian Navy and Foreign Policy. (Halifax: Centre for Foreign Studies Dalhousie University, 1998) 351.
[2] Directorate of Maritime Strategy, Leadmark. (Ottawa: National Defence, 2001) Chapter 4.
[3] Leadmark. Chapter 4.
[4] PMO CADRE web page on DIN: http://admmat:dwan.dnd.ca/dgmepm/special/cadre/pages/Why_new_ships.htm and PMO ALSC web page on DIN: http://admmat.dwan.dnd.ca/dgmepm/special/alsc/Start.htm

Within *Leadmark* there are three terms used to describe future naval planning, they are: 'The Navy of Today', 'The Next Navy', and 'The Navy After Next'.[5] 'The Navy of Today' is described as the next four years.[6] 'The Next Navy' is from five to fifteen years and 'The Navy After Next' is described as always being conceptual.[7] *Leadmark* articulates the navy's strategy for the future and the capabilities required for the fleet of the future, based on the Government of Canada's *1994 Defence White Paper* and *Shaping the Future of Canadian Defence: A Strategy for 2020* (*Strategy 2020)*.[8] It is primarily from these three documents then that naval planners must decide which platforms are required to support the necessary capabilities to fulfill future naval missions and tasks.

Naval planners are working on numerous projects but two stand out, they are: CADRE (Command and Control and Area Air Defence Replacement) and ALSC (Afloat Logistics and Sealift Capability).[9] CADRE is intended to replace and improve upon the capabilities resident in the Iroquois class[10] and ALSC is projected to replace and improve upon the Protecteur class.[11] However, with no foreseeable increase in defence spending in the near future, the navy's bid for two separate platforms is unlikely to survive the intense government and public scrutiny. Therefore, this paper will demonstrate that the navy must submit one platform proposal that accommodates as many capabilities as possible.

If the navy were in fact to attempt to procure both ALSC and CADRE, and complete the Halifax class mid-life upgrade that would consume approximately 64% of the total available CF

[5] Leadmark. 21 and 22.
[6] Leadmark. 21.
[7] Leadmark. 22.
[8] Leadmark. 6.
[9] PMO CADRE web page on DIN: http://admmat:dwan.dnd.ca/dgmepm/special/cadre/pages/Why_new_ships.htm and PMO ALSC web page on DIN: http://admmat.dwan.dnd.ca/dgmepm/special/alsc/Start.htm
[10] The Iroquois class destroyers were designed as a command and control ship with an area air defence capability.
[11] The Protecteur class are fleet replenishment ships capable of re-supplying other ships with fuel, food, water and other stores as well as acting as a second line maintenance facility for organic helicopters.

capital funding beginning in 2007-2008.[12] It is extremely unlikely that the navy will be allocated this much of the CF capital funding or that there would be a substantial increase in the defence budget to accommodate these projects. For validation of this theory one need only look at the predominant theme in various defence documents such as the *1994 Defence White Paper, Strategy 2020 and Leadmark* itself.

The *1994 Defence White Paper* states the Canadian Forces (CF) will be doing less and operating more efficiently at a cost within the limits of our resources and evolving in a way that is consistent with fiscal realities.[13] Strategy 2020 calls for the CF to have a force structure that is viable, achievable and affordable.[14] Leadmark has continued with this theme stating as one of its key assumptions that "there will be no substantial change in the fiscal environment of the Canadian Forces."[15] Moreover, these statements were recently reinforced by the Prime Minister, in an interview on CBC TV when he dismissed calls for increased military funding.[16] Therefore, rather than submitting an unrealistic proposal for two ship acquisition projects and risking rejection of one or both of the proposals the navy must make the difficult decision to only submit one. The question will be which project to choose for submission. As the *1994 Defence White Paper* advocates, the future for the CF will be a time of difficult choices and trade-offs to preserve the capabilities and flexibility of a multi-purpose force.[17]

Chapter seven of *Leadmark* identifies eleven future required naval capabilities, which are broken into two groups called basic competency components and force multiplier competency

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[12] Brief to CFC naval students by Capt(N) Romanow, DMRS, January 2002.
[13] Government of Canada, 1994 Defence White Paper (Ottawa: Canada Communication Group 1994) 10.
[14] National Defence, Shaping the Future of Canadian Defence: A Strategy for 2020. 6.
[15] Leadmark 18.
[16] National Post Online 19 March 2002, www.nationalpost.com
[17] Government of Canada, 1994 Defence White Paper, DIN: http://www.dnd.ca/admpol/pol_docs/94wp/highlights.html Chapter 3.

components.[18] Basic competency components are considered essential in order to be considered as a navy and the force multipliers are considered important in order that the navy be seen as capable and credible medium power navy.

The five basic competency components are:

- C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance);[19]
- Self-Defence;[20]
- Force Generation;[21]
- Sustainment;[22] and
- Organic Air.[23]

The five force multiplier competency components are:

- Force Air Defence;[24]
- Force Under Water Warfare (UWW);[25]
- Sealift;[26]
- Naval Fire Support (NFS)[27] and
- Gateway C4ISR.[28]

[18] Leadmark Chapter 7.
[19] C4ISR is not only the ability to command and communicate with forces but also the ability to detect and track targets of interest.
[20] Any military force (ship) must be able to defend itself.
[21] Deals with personnel training and CF wide issues.
[22] Sustainment for naval forces means the ability to replenish fuel, munitions and consumable goods while at sea, as well as the provision of medical and dental support and a maintenance facility for organic air assets.
[23] Organic Air refers to aerial assets within a task group such as a helicopter.
[24] Force Air Defence is the ability to defend a force by detecting, tracking, and engaging enemy aircraft or missiles at long range with our own missiles.
[25] Force UWW includes anti-submarine warfare and mine warfare two capabilities that Canada possesses within the HALIFAX class and the KINGSTON class.
[26] Sealift is the ability to be able to transport CF equipment and personnel to and from theatres of operation.
[27] Naval Fire Support is the protection of forces ashore by naval gun, missile, and or electronic-warfare systems.

In addition to these requirements Leadmark identifies a separate capability to be achieved when the above requirements are met and that is to have tailored capabilities for Operations Other Than War (OOTW).[29] OOTW "[e]ncompasses the use of military capabilities across the range of military operations except those associated with sustained, large scale combat operations usually associated with war. OOTW are very broad in scope and range from domestic operations within Canada to peace-enforcement operations abroad."[30] It is clear that a balanced fleet must fulfill all of the ship specific basic competency components and some of the force multiplier competency components. Therefore the platform submitted for approval must address those basic components lacking in the fleet and the force multiplier components that Canada considers important in maintaining a medium power navy. Naval planners have unfortunately done this by creating two platform projects, CADRE and ALSC, when realistically Canada can only afford one. "Clarity of purpose and vision will be required to cut through the mass of conflicting priorities and select those tasks and capabilities which will be of benefit to Canada."[31] A careful re-examination of the capabilities designed for CADRE and ALSC and the roles or tasks they will be expected to perform should provide the answer as to which platform proposal to submit for government approval.

Of the capabilities listed in *Leadmark*, CADRE is designed to address C4ISR and Force Air Defence. While the ALSC project plans to fulfill the Sustainment and Sealift capabilities. Force UWW is not addressed in either of these projects as this capability is already resident within the fleet in the Halifax class frigates. The role of the four current Iroquois class vessels is

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[28] Gateway C4ISR is the ability to provide an interface between advanced systems and those of substantially lesser capability, thus permitting the automated sharing of pertinent information. This capability is still considered to be conceptual and therefore not addressed in either CADRE or ALSC.
[29] Leadmark, Chapter 7.
[30] Leadmark, 164.
[31] Peter Jones, "Toward a new Balance for the Canadian Forces." Canadian Gunboat Diplomacy: The Canadian Navy and Foreign Policy . (Halifax: Centre for Foreign Studies Dalhousie University, 1998) 345.

to act as the flagship for the Commander of the Canadian task group and to provide a Command and Control (C2) capability to allow the commander to control the forces assigned to him. The capability of an effective C2 platform has proven itself time and again, not only within the Canadian task group but also when Canadians had command of other nation's assets in the Persian Gulf War and as the Commander of Standing Naval Force Atlantic (SNFL) in the Adriatic for SHARPGUARD and ALLIED FORCE. The navy considers C4ISR as "… the single most important capability that will allow Canadian naval forces to provide viable support to national and multinational objectives."[32] C4ISR is essential for a navy to be able to communicate and have full battle space awareness. C4ISR is also considered to be key to remaining interoperable with our major allies, especially the USN. Therefore C4ISR is a capability that must be maintained within the fleet.

Sustainment of naval forces is generally provided by an underway replenishment vessel and is an essential capability as it allows destroyers and frigates to increase their on station time "… to the theoretical limits of equipment, maintenance and crew stamina."[33] The Protecteur class provides the ability to supply the fleet with fuel, lubricants, victuals, ammunition, spare parts, fresh water, stores, essential medical and dental services, and second line helicopter maintenance facilities.[34] Therefore an effective naval task group must have a replenishment vessel for logistics support in order to be operationally effective. The requirement for a supply vessel is borne out in Peter Haydon's article entitled *The Evolution of the Canadian Naval Task Group* where he states that a task group must have integral logistic support as well as C4ISR and

[32] Leadmark, 128.
[33] Leadmark, 145-146.
[34] PMO ALSC, DIN: http://admmat.dwan.dnd.ca/dgmepm/special/alsc/Start.htm

self-defence capabilities.[35] These essential elements of a task group's composition are also supported by Rear Admiral Morse as a past commander of a Canadian task group and the commander of SNFL during Operation ALLIED FORCE.[36]

Self-Defence is a capability that all warships should have, however, the question is how much or to what degree of self-defence is necessary? The current Iroquois class have an Area Air Defence (AAD) missile capability. This is used to protect other ships in the task group from missiles, such as the Protecteur class and other allied replenishment vessels, which have a limited self-defence capability. *Leadmark,* under the force multipliers components, identifies Force Air Defence as the number one priority. The Force Air Defence capability would give Canadians a long-range weapons system capable of theatre wide engagements to protect other members of the task group which are unable to do so themselves.[37] This assumes that there would be ships in the Canadian task group or under the control of the Canadian commander who would not have anymore than rudimentary passive self-defence measures. This argument is limited in perspective. The Australians, British, Dutch, French, Germans, Spanish, U.K. and U.S. are all incorporating some type of active self-defence missile system into the designs of their new replenishment and amphibious vessels.[38] Canada has also listed in the ALSC project description that there would be some form of active and passive self-defence capability.[39] What type of active and passive self-defence capability for ALSC has yet to be determined, however, an effective solution would be to place the Evolved Sea Sparrow Missile (ESSM) onboard, which Canada is already procuring for the Halifax class.[40] This would give all ships in the Canadian

[35] Peter T. Haydon, "The Evolution of the Canadian Naval Task Group", Canadian Gunboat Diplomacy: The Canadian Navy and Foreign Policy . (Halifax: Centre for Foreign Studies Dalhousie University, 1998) 98.
[36] Briefing to CFC naval students by Rear- Admiral Morse, March 2002.
[37] Leadmark, 150-152.
[38] Briefing to CFC naval students by Cdr Spiller RN, February, 2002.
[39] ALSC brief to CFC naval students by ALSC Project Director, March 2002.
[40] Briefing to CFC naval students by Capt(N) Romanow, DMRS, January, 2002.

task group an excellent self-defence capability and eliminate the need for a Force Air Defence capability. Despite the fact that ALSC is expected to have a self-defence capability, one of the principal arguments in the CADRE project is the need to defend ALSC or other unarmed vessels within the task group's responsibility.[41] The only other vessels that Canadian ships would possibly have to defend are from countries with lesser capabilities and or commercial vessels. This is however considered remote in that Canada would normally be operating with the U.S., U.K. or the French who all have well-established Force Air Defence capabilities. Therefore the argument that Force Air Defence is essential for Canada to defend other vessels is somewhat fallacious.

In the Force Air Defence section, *Leadmark* also suggests that CADRE could contribute to Theatre Ballistic Missile Defence (TBMD) and that the way ahead is the American concept of Cooperative Engagement Capability (CEC).[42] The CEC concept is the ability of one ship to use another ship's information to establish a common picture and engage enemy targets. This capability would also allow one vessel to fire another vessel's weapons at an enemy. Both CEC and TBMD are at the frontier of emerging technology. The research and trial stages, of these systems, by the USN are very expensive ventures.[43] "The art form for a middle power is to avoid being on the expensive bleeding edge of advanced Research and Development, but rather slightly behind the leader, ready to adopt once the initial problems are cracked." [44] While these capabilities would no doubt be 'nice to have' in the 'Next Navy' they are beyond what a medium power navy could consider essentials. On the subject of the high cost of advanced technology,

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[41] CADRE Synopsis Sheet (Identification) Project 00002669. File number: 3136-6-00002669 - June 01.
[42] Leadmark, 150-152.
[43] U.S. Department of Defense report on CEC, dated 27 January 1999. http://www.dodig.osd.mil/audit/reports/fy99/99071sum.htm
[44] Major-General D. L. Dempster, "Generalship and Defence Program Management." Generalship and the Art of the Admiral: Perspectives on Canadian Senior Military Leadership, (St. Catherines: Vanwell Publishing Ltd, 2001) 455.

Leadmark is quite clear: "The pursuit of rapidly evolving technology will be more and more expensive. Unable to match the resources that will be committed by the U.S., Canada must identify those essential military capabilities in which the CF must maintain interoperability with its allies, principally the U.S."[45] As Force Air Defence is not an essential military capability, the navy should wait until these concepts are fully developed and then determine if they are necessary for the 'Navy After Next.'

It is also uncertain whether or not the Canadian public would be comfortable having a Canadian ship's missiles fired by a foreign nation at another nation's ships or aircraft. Canadian public approval is an important consideration in any military purchase as was discovered with nuclear submarines and new helicopters. Any military requirement must be justified by the military and fully understood by the public and the politicians before any funds will be allocated. This point was recently reinforced by the Senior Security Analyst from the Privy Council Office when he wrote that "…to be politically sustainable, expensive investments in military technology and the maintenance of certain capabilities will have to be such that the public can understand why they are being made and will support them over a long period."[46] It is not clear if the Canadian public would understand the need for such an expensive, long-range missile capability such as Force Air Defence. "In Canada there are important realities which require connecting the capability requirements to the domestic economic and political national interests. It has historically been easier given Canadian values to obtain approval for non-weapon systems projects than those with high lethality…"[47]

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[45] Leadmark, 11.
[46] Peter Jones, "Toward a new Balance for the Canadian Forces." Canadian Gunboat Diplomacy: The Canadian Navy and Foreign Policy . (Halifax: Centre for Foreign Studies Dalhousie University, 1998) 346.
[47] Major-General D. L. Dempster, "Generalship and Defence Program Management." Generalship and the Art of the Admiral: Perspectives on Canadian Senior Military Leadership, (St. Catherines: Vanwell Publishing Ltd, 2001) 458.

In spite of this discussion, many would argue that Canada needs to retain a Force Air Defence capability simply for the respect and credibility it brings the Canadian navy amongst its allies, specifically the U.S.[48] While this is no doubt true to some degree, Canada does not have the national will to commit the funds necessary to keep pace with the cost of Force Air Defence technology. Therefore, the navy will have to find other ways to make meaningful contributions and gain respect from its allies. "It would make sense, if such a choice is to be made, to select an area for such an investment … where we could make a contribution which would be useful and give us influence disproportionate to our small size."[49] One needs look no further than the Canadian contribution to the Gulf War for evidence of Canadians earning the respect of its allies and the U.S. It was during the Gulf War that, the then Captain Miller, the only non-U.S. officer to hold a warfare responsibility, commanded a force of some eleven nations from his Iroquois class flagship, which only had a self-defence capability.[50] The reason Captain Miller was assigned such a command was due to the excellent C3 capabilities in the flagship. Again, validating the argument for making C4ISR an essential requirement for the 'Next Navy'. If the Canadian Navy had had an area air defence capability during the Gulf War there is little doubt that the Canadian task group would have been separated, which was contrary to the desires of naval planners and the Government. They wanted the task group to remain together and thus make a distinct Canadian contribution to the Gulf War.[51] The Canadian flagship's fate would likely have been the same as the British, Dutch and Australian air defence ships and been

[48] Discussions with Radm Morse former Cdn Task Group cdr and SNFL Cdr for Op Allied Force, March, 2002.
[49] Peter Jones, "Toward a new Balance for the Canadian Forces." Canadian Gunboat Diplomacy: The Canadian Navy and Foreign Policy . (Halifax: Centre for Foreign Studies Dalhousie University, 1998) 355.
[50] Dr. Richard Gimblett, "Prototype for the 21st Century: The Persian Gulf Revisited." Presented at the conference on: The Canadian navy in the post Cold War Era." University of Calgary March 2001.
[51] Major J.H. Morin and LCdr R.H. Gimblett, Operation Friction. (Toronto: Dundurn Press, 1997) Chapters one and eight.

assigned the duty of protecting a USN carrier.[52] Additionally, after the Gulf War it was determined that Canada's participation "…was to a degree to which a middle power with a limited defence budget can realistically aspire in the expensive high-technology business of modern war."[53] As a result of the high cost of a long-range capability such as Force Air Defence, naval planners should not be considering this as a capability for the 'Next Navy' but perhaps for the 'Navy After Next', if at all.

The third force multiplier priority is Sealift, which is a specific requirement from the *1994 Defence White Paper* and *Strategy 2020* that has yet to be implemented. This capability is being addressed as part of the ALSC design and would give the navy the ability to transport 85% of the land vanguard force, with the air force transporting the remainder.[54] Canada's answer to the sealift question to date has been to charter commercial vessels rather than to pay for an organic capability. While Sealift is not considered essential to the operations of the navy, it is however being considered as essential to the CF by the leadership of the CF and DND. In addition to the *1994 Defence White Paper* and *Strategy 2020*, the *CF Defence Planning Guide* (*DPG*) 2000 has assigned the navy the goal of enhancing the CF's strategic sealift capability.[55] Outside of Canada, NATO has also recognized its lack of strategic lift and is urging member nations to procure this capability.[56] Within Canada, the Canadian public and the politicians are also well aware of the military's lack of strategic lift since the GTS Katie incident, and the transportation difficulties encountered in getting troops and equipment to both East Timor and Afghanistan.[57] This public awareness would only assist the military in acquiring this capability.

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[52] Dr. Richard Gimblett, "Prototype for the 21st Century: The Persian Gulf Revisited." Presented at the conference on: The Canadian navy in the post Cold War

In addition, the fact that Sealift would assist all three services makes it that much more appealing to the government when trying to award federal money for capital projects. It is clear then, that while Sealift is not an essential capability for the navy, it is a high priority for the CF, as it would benefit all three services thus making it a true 'Force Multiplier'.[58]

From this examination of the four main capabilities which CADRE and ALSC are designed to address, it has been determined that C4ISR and Sustainment are essential to the navy, for without them, Canada would be reduced to a regional power navy. Force Air Defence is considered to be too expensive, thereby making it a difficult sell to the government and the public. Sealift is considered to have a high appeal to the public and the government due to its utility to all three services and therefore has considerable merit in pursuing. Now that the capabilities required for the navy have been determined, it is necessary to examine the roles and tasks that CADRE and ALSC are designed for to determine which provides the most benefit to Canada and should therefore be submitted for approval.

CADRE with its C4ISR and air defence capabilities would provide Canada with an effective command ship for the Canadian task group and any other forces assigned to Canadians. As the CADRE ships will build on the Iroquois class capabilities it is likely that the roles of CADRE will be similar to those of the Iroquois class. The proposed three to four CADRE ships would serve as flagships for each of Canada's two task groups and also as the flagship to SNFL, when Canada takes its turn to command the force. This is the extent of the roles for the CADRE class ships because as a command ship they are very specialized and therefore generally limited to task group operations as is the case with the Iroquois class. It is clear that CADRE, if built, would allow Canada to keep pace with its allies in the rapidly evolving technological world of

[58] Force Multiplier: " A capability that, when added to and employed by a combat force, significantly increases the combat potential of that force and thus enhances the probability of successful mission accomplishment." Leadmark

Air Defence and would give the Canadian navy a very effective command platform, comparable to that of France, the U.K. and the U.S. Is it however, essential that the Canadian navy have a platform comparable to these three Major Global Force Projection Navies? This capability would come at a significant cost and with CADRE's limited roles, it would be difficult to justify to Canadians. "CADRE will likely be the navy's most expensive project this decade. An inherently "offensively oriented" project, it will be the subject of intense scrutiny by the Canadian public."[59]

The proposed ALSC project of three to four ships is designed to meet the *Leadmark* capability requirements of Sustainment and Sealift. It will be able to supply the fleet as the Protecteur class do now as well as deliver the equipment of the Vanguard battle group to any area of the world accessible by sea as required by the *1994 Defence White Paper*.[60] It will also have a joint and or combined headquarters capability for an embarked Joint Task Force Commander and his staff, as well as a 60-bed hospital facility. It will have a flight deck capable of multiple helicopters and it will be capable of Non-Combatant Evacuation Operations (NEO) and in addition, be a suitable platform from which to mount JTF2 operations. Its Sustainment and Sealift capabilities would also make it ideally suited to conduct OOTW, such as humanitarian crisis response, which has been a popular tasking by the Government of Canada in the past and is expected to be so for the future.[61]

In addition to the numerous roles mentioned, an ALSC ship would be an extremely desirable asset for NATO and other coalition forces, which are always in need of a replenishment

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[59] Dr. P.T. Mitchell, "ALSC and the Operational Identity of the Canadian Navy: Transformation or White Elephant?" Paper presented at The Canadian Navy in the Post Cold War Era. University of Calgary, March 2001. 17.

[60] Leadmark, 67.

[61] Of the 80 Canadian maritime operations from 1946-2000, 47 of them were OOTW (Annex C of Leadmark).

vessel. NATO, historically, has found that due to the scarcity of replenishment ships, they are the most difficult asset to obtain.[62] This was true for exercises and operations such as ALLIED FORCE.[63] This is also true of coalition operations such as the Gulf War and the current U.S. led operations off of Afghanistan.[64] Assigning an ALSC vessel to fulfill Canada's standing commitment to NATO would also ease the burden currently borne by the Halifax class. The Halifax class are also regularly deploying and integrating into a U.S. carrier battle group, which is another task that could be fulfilled by an ALSC ship. This flexibility to have another ship other than a Halifax class fill certain roles will be increasingly important as the Halifax class commence their mid-life upgrades and are not all available for service. It is quite evident that the proposed ALSC ship with all of its capabilities and versatility offers Canada the best value for its limited defence dollars. With its multi-purpose capabilities it should not be difficult for Canadians to understand its necessity and utility compared to CADRE thereby easing the approval process. "It is the consumer of the service or product who ultimately assesses the value. In the case of the defence programme, it is the Government and people of Canada receiving the defence good who assess its value. Defence must continuously strive to increase the value of its outputs…"[65] While ALSC is the logical choice to submit for approval there are however shortfalls in not having a CADRE type ship in the fleet. These shortfalls could however be overcome with modifications to the current ALSC project.

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[62] Based on author's 3 years of experience in scheduling exercises and operations for SNFM and planning for Operation ALLIED FORCE.

[63] Based on author's 3 years of experience in scheduling exercises and operations for SNFM and planning for Operation ALLIED FORCE.

[64] Dr. R. Gimblett, "Prototype for the 21st Century: The Persian Gulf Revisited." Presented at the conference on: The Canadian navy in the post Cold War Era." University of Calgary March 2001 and Draft letter to the Editor of Globe and Mail, February, 2002.

[65] Major-General D. L. Dempster, "Generalship and Defence Program Management." Generalship and the Art of the Admiral: Perspectives on Canadian Senior Military Leadership, (St. Catherines: Vanwell Publishing Ltd, 2001) 442.

The main shortfall to be overcome would be the lack of a C4ISR capability, which is considered essential for command and control within the task group. The solution to this would be to migrate the C4ISR capability into the ALSC vessel thus making it the flagship for the Canadian task group. This additional role should be achievable as ALSC is intended to have a Joint Task Force Commander embarked and it will therefore have to have a C4ISR capability. The other capability ALSC must have is a good self-defence system installed, such as the ESSM, thereby alleviating the requirement for a separate ship with a Force Air Defence capability. Thus by migrating the essential C4ISR capability from CADRE to ALSC and fitting ALSC with a capable self defensive missile system such as ESSM, the navy would truly have multi-purpose combat capable vessel. The future Canadian task group then would be comprised of one ALSC vessel, as the command and replenishment ship, and three or four frigates all with ESSM for self-defence. This balanced multi-purpose fleet, because of its composition, would be in high demand with our allies, especially the U.S. as currently in the war against terrorism off of Afghanistan "…the USN is desperately short of frigates, and the tanker is doing overtime supplying all the other navies."[66] This fleet would therefore be able to make a meaningful contribution to coalition operations and meet the navy's requirement of remaining interoperable with the USN.

Within this new task group the navy would fulfill all of the essential basic competency components listed in *Leadmark* that are ship specific (C4ISR, Self-Defence, and Sustainment) as well as three of the five force multiplier components (Force Air Defence, Force UWW, and Sealift). Additionally, if considered necessary, the navy could investigate the utility of placing the Naval Fire Support capability within the Halifax class during the mid-life upgrade to further increase the capabilities of the fleet.

[66] Dr. R. Gimblett, draft letter to the Editor of Globe and Mail, February, 2002.

The current projected number of three to four ALSC vessels is however, problematic, as there would not be enough ships to fulfill all of its required roles. One ship would have to be on each coast as part of the two task groups, thereby leaving only one ship for any other tasking and maintenance. This does not account for the three ships necessary to move the land force vanguard if required. It is therefore necessary for the navy to increase the number of ALSC ships being requested. The question is how many are necessary while still remaining fiscally responsible? Some have advocated as few as four, while others believe ten ALSC vessels are what is required.[67] It is suggested that six would be an appropriate number to satisfy Canada's needs while remaining within the defence budget. Six ships is also two less than naval planners are advocating now with four ALSC and four CADRE ships. Six ships would still allow for one ship in each coastal task group and one in a maintenance period, while the remaining three would be available for national taskings, NATO, U.N., or coalition operations.

As the Canadian navy endeavours to remain a 'Medium Global Force Projection Navy', as stated in *Leadmark*,[68] there are many difficult choices ahead with regards to the number of capabilities and ships required. One thing that is certain is that there will not be a dramatic increase in the Government's defence spending. "The only constant our armed forces are likely to encounter over the next 15 years will be a reduced and effectively frozen budget…"[69] It is therefore unrealistic for the navy to submit both ALSC and CADRE for Government approval. The navy must make the difficult choice of selecting and submitting one platform proposal that is capable of accommodating as many capabilities as possible.

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[67] Peter Haydon, "What Naval Capabilities Does Canada Need?" Maritime Affairs, www.naval.ca/article/haydon/whatnavalcapabilitiesdoescanadaneed_bypeterhaydon.htm, and LCdr R. Gimblett, "A Transformational Fleet for Canada in The 21st Century." Maritime Affairs, Spring/Summer 2000.
[68] Leadmark. 44-49.
[69] Peter Jones, "Toward a new Balance for the Canadian Forces." Canadian Gunboat Diplomacy: The Canadian Navy and Foreign Policy. (Halifax: Centre for Foreign Studies Dalhousie University, 1998) 345.

A careful and realistic examination of the capabilities required indicates that C4ISR and Sustainment are essential and need to be maintained. Sealift is considered desirable to acquire, as this capability would benefit all three services and fulfill the requirement from both the *1994 Defence White Paper and Strategy 2020*. The retention of Force UWW is also considered desirable, as this capability is already resident within the navy. It has been determined that Force Air Defence is too expensive for Canada and not essential, as this capability will continue to be maintained by our major allies with whom we will continue to operate. "Some functions, however, will be beyond the size and available resources of the future fleet. In this context, Canada's Navy After Next will rely on cooperation with the like-minded U.S., British and French major global force projection navies to provide the other vital war-fighting functions…"[70] It is clear then that Canada must acquire one platform capable of accommodating C4ISR, Sustainment, and Sealift. The best platform to accomplish this is ALSC.

A fleet of six ALSC ships would be enough to fulfill the roles of both command and replenishment ship for the Canadian task group, as well as providing the Government with additional ships to fulfill other tasks such as Sealift or Humanitarian assistance. The loss of a separate C2 platform with a Force Air defence capability is significant, however, it is mitigated by the acquisition of a truly multi-purpose combat capable ship such as ALSC. This type of difficult decision by the Canadian naval leaders is what is required in the fiscal realities of Canadian defence. It is perhaps also this type of decision that the former VCDS, Vice-Admiral Garnett had in mind when he wrote the following statement. "Commanders must apply resources as judiciously as one would apply firepower – with great care, great accuracy and in precisely the right quantity to ensure that the job gets done. Doing so demands not only ability, but also the courage to establish priorities, to make unpopular decisions for the greater good, and

[70] Leadmark. 95

to husband resources such that the unit, formation or institution succeeds when and where it needs to succeed." [71]

[71] Vice-Admiral G.L. Garnett, former VCDS "The Flag and General Officer as a Resource Manager." Generalship and the Art of the Admiral: Perspectives on Canadian Senior Military Leadership, (St. Catherines: Vanwell Publishing Ltd, 2001) 467.

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