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Research Essay

**The Impact of the Evolution of the Operational Level of War on the
Structure of the Canadian Forces**

- A Sailor's Perspective.

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"The unrelenting progress of mankind causes continual change in the weapons; and with that must come a continual change in the manner of fighting."

- Captain Alfred Thayer Mahan, USN (1840-1914)

"JOINT: An adjective that connotes activities, operations, organisations, etc in which elements of more than one service of the same nation participate."

- Glossary, Canadian Forces Operations Manual

I Introduction

Until recently, most naval officers, and the author among them, would not have recognized the operational level of war. War at sea was elementary in concept: strategy determined the aims of tactics, and tactics set the limits on the possibility of strategy.¹ However, since last days of the Cold War, there have been factors at work that have necessitated a refinement in this simple sailor's approach. Governments are demanding cooperation among the Services of their armed forces in the interests of improved efficiency and economy. Moreover, technological innovation in sensors, decision-making and weapons appears to support the trend to functional², rather than environmental, organisations. Maritime, land and air activities are increasingly

¹ Captain Wayne P. Hughes, "The Strategy-Tactics Relationship," *Seapower and Strategy*, ed. Colin S. Gray and Roger W. Barnett (Annapolis, MD: Naval Institute Press, 1989).

² In this sense "functional" refers to the nature of the effect of an activity, e.g. air defence, indirect fire, surveillance, et cetera. "Environmental" refers to the nature of the platform, e.g. if it flies, it belongs to the airforce; if it floats it belongs to the navy.

interdependent, and a more comprehensive analytical model is required to apply the necessary degree of coordination. This paper will examine the historical antecedents of theories regarding levels of war and show how the concepts came to be accepted and incorporated into naval doctrine.

The primary focus for contemporary issues is the United States Armed Forces, particularly the United States Navy (USN). In determining what implications the operational level of war, and its imperative for "jointness," might have on the Canadian Forces (CF), it is entirely appropriate to draw lessons from the American experience. With due recognition of British ancestry in Canadian naval and military affairs, it is now clearly the United States that exercises almost exclusive influence over the operational style of the CF. There are other good reasons for studying the United States on this subject. The United States Armed Forces have achieved a level of joint operational effectiveness that is unparalleled. Also, as the leaders of what the Tofflers have termed the Third Wave³, they provide a unique laboratory for examining the potential impact of revolutionary information technology on military operations; a development that seems to portend an even greater emphasis on functional organisation and joint co-operation.

The unified CF would seem to be ideally suited to this integrated approach to modern warfare. However, the major impact of unification was upon the strategic organisation of the CF and the Department of National Defence. As will be shown, there was relatively little impact on operational activities. The tendency toward enhanced joint effectiveness in the United States, and elsewhere, will facilitate realisation of the operational potential of unification. Analysis of the operational level of war serves as an instructive vehicle for framing the discussion.

II Evolution of the Operational Level of War

In scale and scope, there is no field of human activity that is more complex than war. The levels of war are a convenient division for understanding the process.⁴ The labels, however, are not absolute: they are a tool for analysis. Students and practitioners of war recognised that it was necessary to isolate the objectives of war from the conduct of combat to promote understanding. Initially, these were the considerations of why, when and where to engage the enemy (and to a certain extent who to select as an enemy) as opposed to how to dispose of the enemy once in contact. These evolved into the realms of "strategy" and "tactics." The industrialisation of war exponentially increased its complexity⁵ and dictated the need for a more sophisticated taxonomy.

John English cites Colonel Wallace Franz' assertion that "Napoleon Bonaparte fathered [a] third stratum of war [lying somewhere below strategy but above tactics] through the masterful manoeuvre of numerous corps formations on a grand scale. He goes on to show that while Carl von Clausewitz, writer of the pre-eminent monograph of western military thought - On War, referred only to tactics and strategy - defining tactics as the use of armed forces in the engagement and strategy as the use of engagements for

³ Alvin Toffler and Heidi Toffler, War and Anti-War, (New York: Little, Brown and Co., 1993).

⁴ Martin Dunn, "Levels of War, Just a Set of Labels?" Research and Analysis: Newsletter of the [Australian] Directorate of Army Research and Analysis, October 1996.

⁵ "During the 19th century's last half, about the time when most military thinkers had grown comfortable with [the] understanding of strategy and tactics, the industrial revolution went to war, thereby altering the basic paradigm in ways not fully understood until after World War I:

- The evolution of the modern industrial state during the 19th century enabled governments to tap vast manpower resources to produce truly mass armies based on the cadre and reserve principle of recruitment and organisation.
- The application of steam and electricity to military ends enabled governments to mobilize these armies and project them into potential theatres with unprecedented rapidity and predictability.
- The size of these armies and their preparation for deployment in future conflict mandated the application of industrial-style planning and directing methods.
- The new firepower, based on rifled, breech-loading weaponry, then on its magazine-fed, smokeless powder variant, increased lethality and ranges, and with them, the scale of modern combat." Bruce W. Menning, "Operational Art's Origins," Military Review Vol. 77/5 (September-October 1997): 33.

the object of war - he patently perceived gradations of strategy. His equation of 'war, campaign and battle' to 'country, theatre of operations and position' and his reference to 'operative elements' point to a threefold division of sorts."⁶ Helmuth von Moltke is generally credited with applying the term "operational" to the level of war between strategy and tactics, that domain in which large scale deployments and logistical considerations dominated. To a large extent, the Prussian General Staff system, which subsequently became the prototype for every large army, was invented to effectively plan and execute movement at the operational level.⁷

As indicated, war is perhaps the most complex human activity. "When the linkage between national strategy and military strategy is unclear, or when the linkage between theatre strategy and the execution of that strategy in the form of a campaign (the operational art) is unclear, then war is complicated even further."⁸ The levels of war serve as a tool for understanding the linkage, but in applying the tool, the larger focus cannot be omitted. Clausewitz' mentor Gerhard von Scharnhorst is attributed with the warning that "one must habitually consider the whole of war before its components."⁹

Colonel Ralph Allen observed that there have often been impediments to understanding the relationship among the strategic, operational and tactical levels of war.

These can usually be attributed to:

- "A failure to examine and understand war as a whole before trying to understand its individual parts;

⁶ English: 7-8.

⁷ Martin van Creveld, Command in War (Cambridge, MT: Harvard University Press, 1985): 106.

⁸ Allen: 114.

⁹ Ralph L. Allen, "Piercing the Veil of Operational Art," Parameters, US Army War College Quarterly, Summer 1995 (reprinted Winter 1986 issue of Parameters): 112.

- "An inability to distinguish military science from military art¹⁰ and to see how the creative-intellectual process of the commander becomes the linchpin between the two; and
- "A deficiency in the analysis of most military historical accounts of wars and campaign studies, particularly with respect to military strategy and operational art."¹¹

While the Prussians made the first explorations of the operational level of war, it was the Soviets, driven by "an ideology that emphasised theory and scientific method in military affairs,"¹² that brought a sense of academic vigour to the process. "Soviet army theorists and practitioners sought systematic explanations for the complexities underlying victory and defeat in modern war."¹³ For a concise summary of the comprehensive Soviet theories about military doctrine and applications of military art and science, David Glantz' "The Intellectual Dimension of Soviet (Russian) Operational Art" is recommended.¹⁴

The efficacy of the theories was demonstrated by the annihilation of the German armies during the campaigns of 1943-45. Often regarded in the West as the products of "brute force and ignorance", the Soviet victories "reflected the application of a highly refined operational art that aimed at the disruption of an enemy's cohesion on a large scale, thus depriving him of the ability to react to changes in the situation, breaking up his organisation and control of higher formations, and, ultimately, preventing him from

¹⁰ Allen goes on to define science as "the possession of knowledge through study" and art as "performing actions acquired by experience, study or observations." Art, then, is the ability to apply knowledge through action. He asserts that "one aspect that seems clear is that military art is more prevalent at the strategic level, where the complexities of war are greater, and military science is more prevalent at the tactical level. At the operational level the two are more evenly applied." Allen: 115-6.

¹¹ Allen: 111.

¹² Menning: 32.

¹³ Menning: 32.

¹⁴ David M. Glantz, "The Intellectual Dimension of Soviet (Russian) Operational Art," The Operational Art: Developments in the Theories of War, ed. B.J.C McKercher and Michael A. Hennessy (Westport, CT: Praeger, 1996).

accomplishing his aims."¹⁵ Yet, despite the Soviet success with the operational art, it did not create any great interest in NATO, particularly the United States, until the post-Vietnam era.

By the end of World War II, the Allied armies had extensive experience in theatre-level operations. However, immediately after VE and VJ Days, there was a rush in every allied country to demobilise. Reduced armies focussed on tactical developments, and the strategic picture during the Cold War was dominated by concepts for nuclear deterrence. This torpor in operational level thought persisted for some thirty years in the West, until the excruciating American experience in Vietnam caused the United States Army to enter a period of re-examination of the whole approach to the conduct of warfare.

The glaring lesson from Vietnam was that success or failure at one level of war directly affects the outcome at the other levels. This interrelationship was clearly identified in the Soviet theories of the 1920s and 1930s. In Vietnam, the tactical prowess of the Americans was unable to overcome their own lack of a coherent strategic policy. On the other hand, the Viet Cong and North Vietnamese Army were able to prevail at the strategic level, even if inhibited by tactical weakness. This was clearly recognised by the North Vietnamese during the war, but only appreciated by the Americans after it was over. Colonel Harry Summers, who went on to write a critical analysis of the Vietnam War, related a telling anecdote: during negotiations, the American officer stated, "You

¹⁵ English: 14.

know you never defeated us on the battlefield." The Vietnamese officer reflected for a moment and replied, "That may be so, but it is also irrelevant."¹⁶

Additionally, changes were perceived in the way that war with the Soviets might be fought. This was driven by an emerging sense that a European war might be fought on a conventional basis, without either side reverting to the exchange of Strategic nuclear weapons, and, if so, there clearly existed a requirement to address very large-scale, large-unit operations. Furthermore, observation of the 1973 Middle East War revealed the impact of technology, in the form of precision weapons, on the scale and speed of activity on the modern battlefield. These two factors "appeared to revise conventional wisdom about the calculus for air superiority, the role of armour in ground combat and the relationships among various component with the conduct of operations."¹⁷ "From a sense that technology and circumstance were changing the nature and content of operations, there flowed a generic understanding of operational level functions - intelligence, fires, manoeuvre, logistics, protection and command and control - which entered either sequentially or simultaneously into planning for major operations and campaigns."¹⁸ The maturation of the United States Army's appreciation of the operational level of war, and the application of the operational art, can be traced through the several editions of Field Manual 100-5 (Operations) from 1976 to 1993.¹⁹

¹⁶ Colonel Harry Summers, On Strategy: A Critical analysis of the Vietnam War (Novato, CA: Presidio Press, 1982), quoted by Colonel K.T. Eddy, "The Canadian Forces and the Operational Level of War", Canadian Defence Quarterly, April 1992: 21.

¹⁷ Menning: 39.

¹⁸ Menning: 41.

¹⁹ United States Army Field Manual 100-5 (Operations) (Washington: Department of the Army, 1993).

III Recognition of the Operational Level of War by Naval Forces

While the United States Army was engrossed in the contemplation of operational art and the conduct of large-scale (operational level) ground campaigns, the Navy and the Air Force were firmly fixed in purely strategic spheres, to a large degree isolated from the Army and from each other. Neither the Air Force nor the Navy had suffered the same degree of excoriation from the Vietnam experience as the Army. Although they participated in the fight, the senior leadership maintained its focus throughout on what was seen as the more important strategic confrontation with the Soviets. How the Air Force came into the operational fold is left for examination elsewhere; how the Navy was drawn to accept, at least in principle, the concept of the operational level of war will be discussed below.

For the last half of the Cold War, the Maritime Strategy outlined the roles for the USN, and to a large extent those of all the Allied navies, for the global containment and strategic engagement of the Soviet Union and the Communist Bloc. The emphasis in the Maritime Strategy was fighting at sea; it was a "blue water" philosophy in which the war might be fought in support of interests ashore, but the fight at sea would be largely independent of activity beyond the beach. In 1974, the President of the U.S. Naval War College, Vice Admiral Stansfield Turner, wrote a paper outlining the evolution and rationale of the four missions of the USN: strategic deterrence, sea control, projection of power ashore and naval presence. Interestingly, he was able to do this without a single mention of the other services. (Actually, there is one passing reference to the Air Force with respect to competition for the delivery of nuclear weapons; however, "the development of the Polaris submarine concept eliminated any question of appropriateness

of this mission for the Navy."²⁰) Although there was some adjustment in the tactical execution of the missions, they remained virtually unchanged for the next twenty years. For a synthesis of the evolution of the Cold War approach to war at sea, Barnett and Barlow's essay, "The Maritime Strategy of the U.S. Navy: Reading Excerpts" is recommended.²¹

There were also a prodigious number of national and Allied publications specifying tactics, techniques and procedures for maritime warfare. If this represented a body of doctrine, it was not recognised as such by many naval officers. There was, however, a remarkably consistent view of naval operations and the methods for coordinating them among the senior officers of all the Allied navies. Although little was written, history and experience had imbued senior officers with a common body of beliefs and tenets for the application of sea power.

James Tritten argued that "basic principles of beliefs and practices do not have to be written to be doctrine. Unwritten customary informal naval doctrine has also existed in the form of commander's intent, and the shared experiences of its admirals and commanders. There is a long history of the informal beliefs of the officer corps as U.S. Navy doctrine - which may have been more powerful than the official written versions which coexisted. The parallel to unwritten doctrine in international law is law based upon custom and not on treaties. Both are equally valid, but treaties are easier to

²⁰ Vice Admiral Stansfield Turner, USN, "Missions of the U.S. Navy," Naval War College Review, Vol. XXVI, No 5 (March-April 1974): 5.

²¹ Roger W. Barnett and Jeffrey G. Barlow, "The Maritime Strategy of the U.S. Navy: Reading Excerpts," Seapower and Strategy, (Annapolis, MD: Naval Institute Press, 1989).

change."²² Elsewhere, he advances the opinion that, in reality, navies have had a long and rich tradition of written doctrine, but it most often went under a different name.²³

Not unlike the subliminal existence of doctrine in the naval services, there are several good examples of navies executing warfare on the strategic, operational and tactical level, but without recognising or giving a label to the operational level. For example during the Anglo-Dutch wars (1652-1674), at the strategic level the British wanted to replace the Dutch at sea throughout the world to further the interests of British commerce. At the operational level this was accomplished through a series of campaigns, including convoy battles, blockades and bombardments of Holland's shores; tactical success in the operational engagements was achieved through the tactics of broadside firing from line-ahead formations.²⁴ In another example that should have perhaps been particularly vivid to the USN, the joint and combined operation that resulted in the American victory at Yorktown was clearly executed at the operational level.²⁵ The engagement of the British fleet by the French off the Virginia Capes, the manoeuvre of the French supply fleet to the besieging American army, the maritime interdiction to prevent reinforcement of the British, and the subsequent land battle to take the fortified town are superb examples of "the employment of military forces to attain theatre-strategic objectives in a theatre of war and operational objectives in the theatres of operations through design, organisation, and execution of subordinate campaigns and

²² James John Tritten, Naval Doctrine...From the Sea, (Norfolk, VA: Naval Doctrine Command, December 1994): 3.

²³ James J. Tritten and Vice Admiral Luigi Donolo, Italian Navy (Retired), A Doctrine Reader: the Navies of the United States, Great Britain, France, Italy and Spain, *Newport Paper Number Nine* (Newport, RI: Naval War College, 1995).

²⁴ Tritten and Donolo: 3.

²⁵ Tritten and Donolo: 37-38.

major operations."²⁶ A more recent example that should have been evident to the USN as an application of the operational art may be found in examination of the War in the Pacific from 1942 to 1944. The campaigns conducted by General Douglas MacArthur through New Guinea and Admiral Chester Nimitz' advances across the Central Pacific were clearly part of a coherent theatre operation.²⁷

The USN was not alone, however, in belated recognition of the operational level of war. The Falklands War (1982) serves as an excellent primer on the levels of war applied to a maritime environment. Although the war was not fought from this point of view,²⁸ the RN has subsequently used it as an instructional model for the application of doctrine and the levels of war.²⁹

As late as 1989, Captain Wayne P. Hughes, USN, a recognised authority on the theory and practice of naval tactics,³⁰ wrote an article on the relationship between strategy and tactics,³¹ without any recognition at all of the operational level of war. He assessed tactics as setting the limits of possibility on strategy, and strategy as determining the aims of tactics. However, his context was still that of the "blue-water" maritime strategy, which he emphasised is fundamentally different from land warfare.³² At sea,

²⁶ Field Manual 100-5: 6-2.

²⁷ Captain Wayne P. Hughes, "Naval Maneuver Warfare", Naval War College Review, Summer 1997.

²⁸ Sandy Woodward and Patrick Robinson, One Hundred Days: the memoirs of the Falklands Battle Group Commander, (Naval Institute Press, 1992).

²⁹ BR 1806: The Fundamentals of British Maritime Doctrine, (London: Her Majesty's Stationery Office, 1995): Annex B.

³⁰ Captain Hughes is the author of Fleet Tactics: Theory and Practice (Annapolis, MD: Naval Institute Press, 1986) and Military Modeling, 2nd Ed. (Alexandria, VA: Military Operations Research Society, 1989). He is also the author of the article "Naval Tactics" in the Encyclopedia Britannica.

³¹ Captain Wayne P. Hughes, "The Strategy-Tactics Relationship," Seapower and Strategy, ed. Colin S. Gray and Roger W. Barnett, (Annapolis, MD: Naval Institute Press, 1989).

³² "Blue-water" engagements could be characterised as follows:

- Naval warfare is attrition-centred. Attrition comes from the successful delivery of firepower.
- Scouting (an encompassing term for reconnaissance, surveillance and other aspects of what has come to be known as information warfare) is a crucial and integral part of the tactical process.

there is no tactical advantage for the defence; there is no counterpart to prepared positions; there are no terrain constraints; the concept of reserves has limited validity. "It is demonstrable both by history and theory that not only has a small net advantage in Force often been decisive in naval battles, but also that the slightly inferior force tends to lose with very little to show for its destruction in damage to the enemy."³³ Doctrine emerged in this argument as the "glue of tactics." "As much as can be foreseen in peacetime must be imbedded in doctrine, and training must be assiduously keyed to it... When a navy's possible wartime tasks are as sweeping as those of the U.S. Navy, the structure of combat doctrine is acutely difficult to formulate."³⁴

By 1990, however, there were a number of pressures on the Navy to change. The 1986 Goldwater-Nichols Act, which legislated a new level of joint co-operation among the armed forces, the evaporation of the Soviet threat and the experience in the Gulf War all conspired to reshape the Navy's thinking with respect to strategy, the operational level and doctrine. Admiral Frank B. Kelso is credited with having recognised the need and initiated the necessary action,³⁵ although it had once been acknowledged that if the emphasis for the Navy was shifted away from the "blue-water" focus, there would be need for change.³⁶ The watershed document in this process was the 1992 Department of the Navy White Paper, ...From the Sea, which defined the strategic concept intended to

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- Command and control transform firepower and scouting potential into delivered force upon the enemy. Naval combat is a force-on-force process involving, in the threat or realisation, the simultaneous attrition of both sides. To achieve tactical victory, one must attack effectively first. Hughes: 59.

³³ Hughes: 49.

³⁴ Hughes: 55.

³⁵ Tritten: 3.

³⁶ "The application of naval power against the land requires of course an entirely different sort of Navy from that which existed during the struggle for supremacy." Samuel Huntingdon, "National Policy and the Transoceanic Navy", United States Naval Institute: Proceedings, May 1954, quoted by Geoffrey Till, "Maritime Strategy and the Twenty-first Century," Seapower: Theory and Practice, ed. Geoffrey Till, (Newbury Park, UK: Frank Cass, 1994): 188.

carry the Navy and Marine Corps beyond the Cold War and into the twenty-first century. It signalled a change in focus and priorities away from operations *on the sea* toward power projection and the employment of naval forces *from the sea* to influence events in the littoral regions of the world - those areas that are within direct control of and vulnerable to the striking power of sea-based forces.³⁷ Naval Doctrine Command was established in March 1993 as the focal point for new doctrinal thinking to facilitate the transition. A collateral, but equally important, function from the Navy's point of view was to ensure that the Navy had a strong voice in the increasingly important world of joint doctrine. "The Naval Doctrine Command [was] the primary authority for the development of multi-Service naval concepts and integrated multi-Service naval doctrine as well as for the Navy Service-unique doctrine."³⁸ The command's missions include[d] providing a co-ordinated Navy/Marine Corps voice in joint and multinational doctrine development and ensuring that naval and joint doctrine [were] addressed in training and educational curricula and in operations, exercises and wargames. Priority [was] to be given to doctrine development that addresse[d] the new geo-strategic environment and its associated changing threat; and to efforts which enhance the integration of naval forces in joint and multinational operations."³⁹ Publication in 1994 of Naval Doctrine Publication 1: Naval Warfare, emphasised the Navy's new commitment to full partnership in joint and multinational operations. The extent of the paradigm shift can be seen in the Navy's embrace of the previously unacknowledged concepts of the three levels of war, the

³⁷ Forward...From the Sea, (Washington, DC: Department of the Navy, 1994): letter of promulgation.

³⁸ Authors note: In the United States, "Naval" refers to the Navy and the Marine Corps. "Navy" means just the Navy. As I learned at Naval Doctrine Command (1994-96), this transcends the grammatical distinction between an adjective and a noun. Significantly, Naval Doctrine Command has evolved into the Navy Warfare Development Command.

³⁹ Tritten: 3.

significance of "centre of gravity" and 'critical vulnerability" in campaign planning and codification of the principles of war.⁴⁰

There were pragmatic considerations that abetted the philosophical transition to the joint arena. As Naval Doctrine Command was being established, the Universal Joint Task List (UJTL) was being developed under the auspices of the Chairman of the Joint Chiefs of Staff. The UJTL was an ambitious project in which every military activity from the national strategic level to tactical procedures would be specified in a menu of tasks, conditions and measures. From the UJTL, the unified Commanders in Chief would select those tasks that were essential to fulfilling their missions. In an attempt to rationalise and increase the effectiveness of training, only those critical tasks identified by the CINCs would be funded. Clearly, in the long run, this approach would have a significant effect on "programmatics" and the acquisition of capital equipment. During an exchange posting to the Naval Doctrine Command at this time, the author was peripherally involved in the USN's considerations of how to contend with the UJTL. Simplistically, for any of the Services, the joint approach was problematic in the preservation of core competencies. For example, if none of the regional CINCs identified anti-submarine warfare as a critical task for his mission at a particular time, there would be no funding available for training in this field. There would be concomitant implications for the acquisition programs for anti-submarine ships and equipment. As indicated, this is a bit simplistic, because there are mandated *Title 10* Service requirements for certain capabilities. Nonetheless, there were clearly potential rocks and shoals for the Navy in charting the way ahead in the increasingly joint Congressional environment. The solution was discovered through development of the Universal Navy

⁴⁰ Tritten and Donolo: 132.

Task List (published by the Department of the Navy in September 1996). This document combines the strategic and operational level of war tasks from the UJTL and the Navy Tactical Task List to produce a comprehensive hierarchical listing of tasks that can be performed by naval forces. Tasks are derived from Service and joint doctrine and tactics, techniques and procedures, and doctrinal references are cross-referenced to support the "requirements-based, 'mission-to-task' joint training system."⁴¹

It is evident that the U.S. Navy's recognition of doctrine, and particularly its application to the operational level of war, was largely driven by a *realpolitik* of manoeuvre among the Services and the fiefdoms of the Joint CINCs. This is not to say, however, that the paradigm shift has not had a real and significant change on the way that the USN views maritime warfare. Forward...From the Sea, the 1994 White Paper, amplifies the commitment to joint operations and the littoral focus of maritime warfare made in ...From the Sea. The extent of the shift is apparent in the five "fundamental and enduring roles in support of the National Security Strategy,"⁴² compared to the four Navy missions of the Maritime Strategy. (See Table 1.)

Table 1: Changing Priorities in the Naval Roles

Maritime Strategy (1970-1992)	Forward...From the Sea (1992...)
Strategic Deterrence	Projection of Power from Sea to Land
Sea Control	Sea Control and Maritime Supremacy
Projection of Power Ashore	Strategic Deterrence
Naval Presence	Strategic Sealift
	Forward Naval Presence

⁴¹ OPNAVINST 3500.38/MCO 3500.26/USCG COMDTINST M33500.1: The Universal Navy Task List, (Washington, DC: Department of the Navy, 1996): Section 1.

IV The Operational Level of War and Joint Warfare

In the American context, there is a direct relationship between the theory of the operational level of war and the conception of "jointness." Full understanding of the relationships requires a thorough knowledge of the Unified Command Structure, for which the reader is referred to U.S. Joint Publication 0-2: Unified Action Armed Forces⁴³. This publication provides the doctrine and policy governing the unified direction of forces and stipulates the command relationships and authority within the legal and constitutional framework of the United States. However, the typical relationships of commands to the three levels of war shown in Table 2 will be helpful. It can clearly be seen that joint activity and responsibility is focussed primarily at the strategic and operational levels, and the tactical level remains the domain of the Services.

Table 2: Command Relationships to Levels of War

COMMAND	STRATEGIC	OPERATIONAL	TACTICAL
Unified Command (Geographic)	X	X	
Unified Command (Functional)	X		
Sub Unified Command	X	X	
Joint Task Force Command		X	X
Functional Component Command		X	X
Service Component Command		X	X
Battle Group Commander		X	X
Task Unit Commander		X	X
Ship, Squadron, Battalion			X

⁴² Forward...From the Sea: 10.

⁴³ Joint Publication 0-2: Unified Action Armed Forces, (Washington, DC: Department of Defense, 1995).

The Goldwater-Nichols mandate for Joint Armed Forces, the current American perception of the strategic environment and the influence of exponential improvements in digital technology are expressed in Joint Vision 2010 - "an operationally based template for the evolution of the Armed Forces for a challenging and uncertain future."⁴⁴ The three levels of war are fundamental, and it is at the strategic and operational levels that "jointness" is imperative.⁴⁵

Experience in the Gulf War showed the utility in joint co-ordination of air activity under the Joint Force Air Component Commander through the process of apportionment and promulgation of the Air Tasking Order. Similarly, the efficacy of the Joint Targeting Board was apparent in the improved efficiency and prevention of conflicting priorities or multiple selection of the same target by different forces for air strikes, indirect fire support and land-attack missile assignment. Furthermore, the impact of space-based equipment and integration of intelligence, surveillance and reconnaissance activities supports functional organisation for activities like theatre anti-missile defence.

Advocates suggest that the trend will continue, and, in fact, lead to some form of unification of the Armed Forces. Moreover, the levels of war will be flattened and merged as the cumulative effects of technology on weapons, sensors and decision-making

⁴⁴ Joint Vision 2010, (Washington, DC: Department of Defense, 1996).

⁴⁵ There are, however, those who argue that there are a number of mitigating factors that may impede further functional integration. To a certain extent, "enthusiasm within the U.S. military is tempered by concerns about over-reliance on technology and the possible loss of traditional combat skills." In the common parlance of the sailor, this is often expressed as, "what happens when someone pulls the plug." It is also argued that, in the United States, the functional integration being driven by emerging technologies threatens to upset the "delicate balance of Service autonomy." From this perspective, there are strong proponents for each Service in the political, industrial and military sectors that campaign effectively for their champions. One effect of this is the significant overlap in capability among each of the Services. After all, the USN is not only the world's largest and most effective navy, it also possess the world's second largest air force (Naval Aviation) and a large and modern army (United States Marine Corps) as wholly owned subsidiaries. For a fuller discussion regarding some of the impediments to further Service integration, see Dr John H. Miller, "Information Warfare: Issues and Perspectives," extract from Sun Tzu Art of War in Information Warfare, March 1995, reproduced in CFC A/AS/JCO/INS/S-1.

drive "doctrinal changes in battlefield time-space relationships, the balance combat power and manpower, and the nature of command and control."⁴⁶

V Implications for the Canadian Forces

Logically, one could assume that if the impetus of technology is driving the Armed Forces of the United States to functional integration, the unification of the CF would ideally position them to exploit this trend across the full spectrum of warfare.

The foreword to the CF Operations manual provides a succinct summary of the process of integration and unification of the Royal Canadian Navy (RCN), the Canadian Army and the Royal Canadian Air Force (RCAF). The intentions governing the process were laudable, and, in terms of the current atmosphere of "jointness" in operational level activities, almost prescient. Nevertheless, the results of unification were largely cosmetic. While it is beyond the scope of this paper to demonstrate it in detail, it does not take more than a cursory examination of current force structure and capabilities to conclude that the CF have not succeeded in addressing defence roles "within the context of an integrated, functionally organised, highly mobile force, rather than a force organised in accordance with the traditions of the navy, army and air force."⁴⁷

Unification did make significant changes in the degree of civil-military interaction in the control and management of the CF and Department of National Defence. Common logistics, supply and training systems produced appreciable economies of scale and reduction of redundant overhead. However, beyond the superficial commonality of

⁴⁶ James K. Morningstar, "Technologies, Doctrine and Organisation for RMA," Joint Force Quarterly, Spring 1997: 39.

uniforms and ranks, unification did little to improve the common operational capabilities of the CF. The perception of joint capability is typically propagated in statements like this, taken from the Operations manual: "The CF is a unified force and, as a matter of routine, conducts operations involving elements of at least two environments."⁴⁸ In reality, this commonly reflects the fact that the flying and maintenance crews in organic shipborne and tactical-lift ground aviation wear air operations cap badges.

Unification had impact on the CF relationship with the Department of National Defence, and developed a potentially joint strategic headquarters. The responsibilities for the senior leadership are stipulated in the Report by the Minister of National Defence to the Prime Minister on Authority, Responsibility and Accountability (ARA)⁴⁹. The Environmental Chiefs of Staff are responsible for exercising command of assigned forces conducting force generation and routine operations and exercising command of other forces that may be assigned. The Deputy Chief of the Defence Staff is responsible for exercising command and control of non-routine and contingency operations on behalf of the Chief of Defence Staff. Although not specifically mentioned, the mandate for joint operations is implicitly accorded to the Deputy Chief of Defence Staff; the Environmental Chiefs of Staff can potentially also command joint operations, but this is a more tenuous implication. Responsibilities with respect to the levels of war (or conflict, in the CF lexicon⁵⁰) are not mentioned.

⁴⁷ B-GG-005-004/AF-000 Canadian Forces Operations, (Ottawa, ON: Department of National Defence, 1997): i.

⁴⁸ Canadian Forces Operations: ii.

⁴⁹ Authority, Responsibility and Accountability: Guidance for Members of the Canadian Forces and Employees of the Department of National Defence: Report to the Prime Minister, (Ottawa, ON: Department of National Defence, 1997).

⁵⁰ Author's note. This is done for two reasons: it satisfies a theoretical notion that "war is essentially a subset of conflict and not an isolated state," and it allows application of the concept to the extensive Canadian experience in operations other than war.

The Deputy Chief of Defence Staff is also responsible for the development and maintenance of CF concepts and doctrine. The Operations manual is the keystone publication in the CF doctrine publication system. Hence, it must be regarded as the authoritative reference for the conduct of operations. Ironically, beyond stating that the CF is a unified force, it makes this unusual statement: "Notwithstanding the legal aspects of the [National Defence Act], which describes the CF as a single service, when elements of two or more environments of the CF *are required to operate* in the same theatre or area of operations in support of the same national strategic objective, they will operate under a *joint* structure using internationally recognised joint terminology." It goes on to say that, "Environmental doctrine does not provide adequate guidance for the employment of military forces when elements of two or more environments of the CF *are required to co-operate*."⁵¹ The valid conclusion may be drawn from this that the environments of the CF do not operate very willingly or very effectively together.

This is not to say that they are deliberately uncooperative. The officers and non-commissioned members of the CF share much in terms of common training, from basic training through junior and senior leadership courses and the Canadian Forces College. The integrated National Defence Headquarters reinforces a common CF point of view. So there is an important start to creating the right culture; however, "there remains much to be done in the areas of command and control, the organisation of infrastructure and joint warfare training."⁵² The problem lies in the fact that neither the strategic direction nor the operational doctrine for the unified CF mandate joint operational effectiveness.

⁵¹ Canadian Forces Operations: ii.

⁵² Commodore K.A. Nason, "Joint Operations in the Canadian Forces: A Meaningful and Timely Start," Canadian Defence Quarterly, December 1994: 7.

In fact, the 1994 Defence White Paper, the prevailing government policy statement, makes no mention at all of a requirement for joint operations. It does specify the need for multi-purpose, combat-capable maritime, land and air forces, but there is no consideration of what capability might be required for these forces to operate effectively together; although, there is a considerable amount of guidance on specific equipment requirements for the individual environments. Perhaps, the White Paper might be too broad a document in which to search for direction on operational policies; however, the Defence Planning Guidance⁵³ for 1999, the superior departmental strategic guidance, is not any more specific in defining the capability required to facilitate joint operations, nor is enhanced joint capability identified as a priority. Again, reference to responsibility at different levels of operations is omitted.

Evidently, the United States "Goldwater-Nichols Department of Defense Reorganization Act of 1986" achieved more in effective joint integration than Bill C-243, "The Canadian Forces Reorganisation Act" (1968). In fact, the aims of both pieces of legislation were similar. Both were aimed at strengthening civilian control over defence issues and reducing futile inter-Service rivalries. The differences were in the means of achieving these aims. The American act emphasised a unified command structure, with appropriate allocation of authority and the placement of clear responsibilities for mission success, in order to enhance the effectiveness of military operations and improve management and administration of the Department of Defense. The emphasis on joint activity - effective inter-Service co-operation permeated the document. The most significant and effective contribution to the elimination of internecine Service rivalries came through the execution of all military missions - in peace and war - by independent

⁵³ Defence Planning Guidance (Ottawa: Department of National Defence, 1998).

Joint Commanders-in-Chief (CINC), reporting only to the Secretary of Defense and the President.⁵⁴ The Services are limited under *Title 10* to manning, equipping and training the forces that are assigned to the CINCs for accomplishing their missions. On the other hand, the Canadian legislation emphasised economy and fiscal probity, while attempting to eradicate the independent Service cultures by stripping away titles and superficialities, like uniforms.

Unfortunately, the real issue of Service interoperability was not addressed. Indeed, throughout the Cold War, the environments of the CF, despite "common uniforms and common rank designation," continued to carry out the same functions, with the same equipment, as the Services had done. There was no comprehensive plan for the elements of the CF to act together as a joint force. Maritime, land and air formations and units were assigned to NATO higher formations piecemeal. Although there have nominally been "joint operations" since the end of the Cold War, in reality these have been single environment components reporting to a national contingent commander. The components themselves have been subsumed in larger multinational maritime, land and air formations. Canadian participation in the Gulf War serves as the prototypical example. There have been other examples of closer co-operation between the environments, but these have been at very low levels of difficulty on the military scale. A sailor navigating a rubber boat through a wheatfield while reporting to a Land Force brigade commander during the Winnipeg floods is scarcely a joint achievement

However, in the American blossoming of joint co-operation at the operational level, there are seeds for optimism with regard to improving the joint capability within

⁵⁴ Don M. Snider, "The US Military in Transition to Jointness: Surmounting Old Notions of Interservice Rivalry," *Airpower Journal*, Fall 1996: 17.

the CF. In order for this to happen there are three fundamental issues that need to be addressed.

The first is the refinement of force structure. The National Defence Act and the 1994 Defence White Paper imply the need for operationally integrated forces, but there is little explicit guidance on how this shall be achieved. The annual Defence Planning Guidance document is the appropriate vehicle to articulate the blueprint for joint capability. The stated purpose for this document is to provide "a framework for translating Government direction as established in the Defence White Paper into a capable and efficient Defence Services Program that delivers affordable, multi-purpose, combat-capable armed forces for Canada."⁵⁵ Missing from this framework is a coherent statement for a force development model for the CF as a whole. The nature, organisation and equipment of the maritime, land and air environments are solely within the purview of the Environmental Chiefs of Staff, although there are some specialised and common activities that reside with other Capability Components. Essentially, however, projects for the acquisition of major capital equipment are designed to suit environmental requirements and sponsored by the appropriate Chief of Staff. The Defence Management Committee, a committee of all the Environmental Chiefs and the Departmental Group Principals, then reviews the projects and assigns them a priority for fulfilment. Hence, there is no master plan - no guidance for strategic and operational level integration of capability; the Defence Services Program is a compromise to satisfy the requirements of the three environments, each of which is free to develop their own concept of what that environment should look like.

⁵⁵ Defence Planning Guidance: forward.

To remedy this, a new approach is required. Using a model, like the Universal Naval Task List - a compendium of strategic, operational and tactical tasks, a coherent force structure needs to be developed in which the strategic guidance is provided from National Defence Headquarters, the operational level is required to demonstrate real joint capability and the tactical level remains within the environmental purview. However, each tactical component must maintain the ability to be interoperable at the operational (joint) level. The Defence Services Program, and in particular the Major Capital Plan, then stipulates the capability required from a joint point of view. Every major project must be shown to be compatible with joint requirements.

As an example, in a few years, Maritime Command will need to replace the existing fleet of at-sea replenishment ships (AORs). In addition, there is a recognised need in the CF for sealift capability in order to transport both land forces and the ground support for air forces. In an attempt to satisfy these two requirements simultaneously, there is a proposal (Project M2673) for a class of Afloat Logistics and Sealift Capability ships⁵⁶. Each of the other environments obviously has a contribution to make in determining the capacity and capability of this ship. This type of project clearly has the potential to enhance joint effectiveness, and it could well serve as a foundation piece for supporting a coherent force development model for effective employment at the operational level. From this point of view, this new class of ship should be seen as a CF project and not as a Maritime Command project. There are other examples, but this will serve for the purpose of illustrating the principle of the joint approach to procurement.

⁵⁶ For a discussion of concepts for this project, see Bruce T. Irvine, "Afloat Logistics and Sealift Capability for the Canadian Navy," Canadian Defence Quarterly, Summer 1997.

A more complete, and perhaps better example, of the rational approach to force structure may be seen in that advocated in the United Kingdom's Strategic Defence Review.⁵⁷ This document serves as the blueprint for a fundamental reshaping of the British forces. Recognition of the three levels of war is evident. The emphasis is on shaping joint forces to operate at the operational level.

Although operational effectiveness alone should make a sufficiently compelling argument, affordability issues often dominate defence decisions. Nonetheless, one is likely to be drawn to the same conclusions. "In the climate of today, the affordability issue is critical and overriding, and will oblige the services ultimately to accept living, training and fighting together on a regular basis under a command structure which is joint all the time. ...[W]e will not be able to afford stand alone environmental capability packages which can be integrated into joint or combined operations as required."⁵⁸

The second issue that needs to be addressed is the refinement of doctrine. There are two areas that require attention: how the doctrine is written, and how it is interpreted. Canadian operational doctrine is largely a synthesis of NATO and U.S. doctrine. In most cases, these are adopted, *holus-bolus*, with only minor modifications to language to suit the Canadian context. Given the limited staff resources in the CF, it makes sense to avoid "reinventing the wheel" wherever possible, but there is a weakness in adopting doctrine without having a force structure that is compatible. For the Navy and the Air Force, the CF contribution to the operational level of war is usually seen as being part of a maritime or air component in a combined force, and "jointness" is something that occurs between the components, not between the environmental elements of the CF. For the Army,

⁵⁷ Strategic Defence Review, (London: Ministry of Defence, 1998)

⁵⁸ Nason: 8.

which given the traditional Army penchant for doctrine at all levels has been the premier author on most CF doctrine, has attempted to apply the American concepts in terms of the peace support operations conducted over the last four decades, and the Canadian terminology is consequently defined in "land-centric" terms. This creates some problems in the integration of environmental doctrine with the joint doctrine. For example, the "land-centric" definitions of deployability and sustainment do not coincide very well with the operational nature of ships. Consequently, the Maritime Command publication, Adjusting Course: A Naval Strategy for Canada, and Air Command's Out of the Sun: Aerospace Doctrine for the Canadian Forces, while broadly consistent with the CF Operations manual, lack a direct connection for joint interoperability. Instead, they reflect the environmental requirements.

The doctrine gap reflects the historical employment of CF units in large-scale operations. Canadian maritime, land and air forces are contributed to larger multinational maritime, land and air components, and "jointness" occurs above the level at which the Canadian units operate.

This reveals the third issue that needs to be addressed in improving CF joint capability: the actual practice of joint activity in exercise and operations. Those few attempts that have been made in this direction have generally consisted of taking units from two or more environments and applying them to a common task (or concurrent tasks in support of a common objective) for a relatively short period of time. There have been examples of greater integration, but this is usually in the form of air forces providing the type of support to maritime and land forces that is provided by organic aviation in more traditionally organised navies and armies. Rarely, and seldom successfully, has there

been operational integration of the three environments. This is not surprising because the force structure and doctrine is not suitable for the purpose.

This individual approach to force employment is only acceptable if the intent is continue making unit size contributions to larger multinational formations, and we are content that operational control of these units should reside outside Canadian hands. This is, however, patently not the case. The entire history of the CF since the commitment of troops to World War I has been a march, occasionally faltering, toward effective forces operating under effective Canadian command. The march has been slowed at times because the environments, and previously the Services, have seen themselves as subsidiaries of larger navies, armies and air forces, the British until the end of World War II and the Americans thereafter. This legacy is perpetuated in the current force structure. Nonetheless, there are imperatives, operational and economical, for addressing real unification of the CF now, even if it is thirty years after the legislation that initiated the process.

As an initial means to addressing this threefold approach to the improvement of operational effectiveness, a more clearly defined headquarters organisation would be required, one based upon a more explicit statement of joint and operational level command responsibilities in the ARA. Commodore Nason suggested creation of a Canadian Forces Joint Command under the Deputy Chief of the Defence Staff to coordinate joint training and mission execution.⁵⁹ The Environmental Chiefs of Staff would retain responsibility for well-trained, combat-ready environmental forces in a manner similar to the U.S. Chiefs of Service. This constitutes a bold step, but one which is completely consistent with the intentions of unification. Such a process has been

inhibited in the past by the legacy structure inherited from the RCN, RCAF and Canadian Army; however, a joint approach to the Defence Services Program and a unified force structure model can ameliorate this.

The good news is that the same technological innovations and demand for fiscal efficiencies that are driving the United States, as well as the United Kingdom and others, to develop a more functionally integrated approach for their armed forces provides a model for better operational interoperability among the CF. For example, as the USN has embraced the operational level of war and climbed aboard the joint wagon, naval doctrine and, subsequently, organisation and equipment will evolve to reflect this more integrated approach. In the spirit of *Luke 9:57*,⁶⁰ naval doctrine, organisation and equipment in Canada will proceed down a similar path. If each of the elements of the CF similarly continues to emulate its American counterpart, the enhanced interoperability among the American Services will necessarily mean greater interoperability among the elements.

This is not merely imitative behaviour: a kisby ring being sucked along in the wake of a large ship. There are solid strategic grounds for deliberately matching the American pattern. Notwithstanding periodic assertions of independence, Canada has a close and comprehensive defence/military relationship with the United States. There are strong institutional ties established through the US/Western Alliance system via NATO and the ABCA Quadripartite agreements, the continental commitments through NORAD and the Permanent Joint Board on Defence, and the Defence Sharing Agreement.⁶¹ And Canada is not alone in this respect. For example, RN officers generally acknowledge that

⁵⁹ Nason: 9.

⁶⁰ "And it came to pass, that, as they went in the way, a certain man said unto him, Lord, I will follow thee withersoever thou goest."

it is necessary for the RN to maintain compatibility with the USN. This is not just because of the NATO connection. The USN has become the "industry standard" against which all aspects of naval capability are measured. From Canada's point of view, even if forces participate in some form of coalition without the Americans, the common ground among those forces that do participate will likely be their compatibility with the Americans.

VI Conclusion

In this essay, the historical evolution of the concept of the operational level of war was examined. For large-scale operations, in particular, there is a need for a level of command, planning and execution that translates strategic objectives into tactical execution. Indeed, for any size of operation, if strategic goals are involved, and this must be axiomatic for the employment of military forces, then the three levels, strategic, operational and tactical, are inextricably linked. This was seen to be so even in the realm of maritime warfare in which the concept was slow to be appreciated in naval doctrine. Nevertheless, it was shown that an appreciation for the operational level was essential for modern operations, and modern operations are intrinsically joint. The requirement for a joint approach to operational level activities is reinforced by the technological revolution, the so-called Revolution in Military Affairs, which is driving forces to a functional, rather than an environmental, organisation.

Despite the mandate of unification, the CF have neither a joint nor a functional structure that currently permits effective employment at the operational level. However, this deficiency can be resolved through development of a coherent over-all force structure

⁶¹ Andrew F. Cooper, Canadian Foreign Policy: Old Habits and New Directions, (Scarborough, ON: Prentice-Hall, 1997).

for the CF, implementing the model through appropriate control of the Defence Services Program, reconciling CF and environmental doctrine, shaping the headquarters of the CF to reflect a better delineation of joint responsibilities in the ARA and, most importantly, putting joint practices in effect through exercises and operations. The technological drive to functional organisation and "jointness" at the operational level of war in the U.S. forces, and those of our other major allies - like the U.K., will facilitate the evolution of a truly unified Canadian Forces.

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