



ON TRACK

Conference of Defence Associations Institute . L'institut de la conférence des associations de la défense

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- . Managing US and Canadian Defence in North America
- . Transforming National Defence Administration
- . Long Wave Theories and the Canadian Forces
- . What Price Amphibiosity?

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The views expressed in *ON TRACK* are those of the authors.



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La couverture

Sapper Darrin Davis, of Welland, Ontario, places detonation cord around 122mm rockets prior to an ordnance disposal near Nazer Kala, Afghanistan. Sapper Davis is a Combat Engineer from Task Force Kabul/Le Sapeur Darrin Davis, de Welland (Ont.), place un cordeau détonant autour de roquettes de 122 mm avant que l'on procède à leur neutralisation, près de Nazer Kala, en Afghanistan. Le Sapeur Davis est sapeur de combat de la Force opérationnelle à Kaboul (FO Kaboul). Photo: Sergeant Frank Hudec, Canadian Forces Combat Camera/photo: Sergent Frank Hudec, Caméra de combat des Forces canadiennes

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FROM THE EXECUTIVE DIRECTOR

Colonel (Ret'd) Alain Pellerin, OMM, CD



On 28 and 29 October, the Conference of Defence Associations Institute (CDAI) and the Canadian Defence and Foreign Affairs Institute (CDFAI), in collaboration with the Institute for Research on Public Policy, Queen's University, the War Studies Program at the Royal Military College of Canada, the DND-funded Security and Defence Forum, General Dynamics Canada, David Scott, and the Walter and Duncan Gordon Foundation will host the 8th Annual Graduate Student Symposium at Royal Military College Kingston, Ontario. The symposium will highlight the work of PhD and MA students from civilian and military universities. Leading edge research from young scholars in the fields of security and defence studies, and national and international issues will be showcased.

The aim of the symposium is to strengthen linkages between civilian and military educational institutions. Keynote speakers are Senator the Honourable Hugh Segal and Major-General Andrew Leslie.

Anyone with an interest in defence, national and international issues is welcome to attend. Mark the dates of 28 and 29 October in your calendar to attend a stimulating gathering of Canada's best young military thinkers. For more information please read the symposium notice elsewhere in this publication.

The Conference of Defence Associations Institute salutes the Royal Canadian Legion for its initiative in urging the Government of Canada to declare 2005 as the Year of the Veteran. The Year of the Veteran has given all Canadians an opportunity to acknowledge the sacrifices of Canadian men and women who have served this country in the cause of freedom, something which we too easily take for granted in this period of prosperity.

MOT DU DIRECTEUR EXÉCUTIF

Colonel Alain Pellerin (ret.), OMM, CD

Les 28 et 29 octobre, l'Institut de la Conférence des associations de la défense (ICAD) et le Canadian Defence and Foreign Affairs Institute (CDFAI), en collaboration avec l'Institut de recherche en politiques publiques, l'Université

Queen's, le programme d'études sur la guerre du Collège militaire royal du Canada, le Forum sur la sécurité et la défense financé par le ministère de la Défense, la société General Dynamics Canada, David Scott, et la fondation Walter and Duncan Gordon tiendront le 8^e symposium annuel des étudiants diplômés au Collège militaire royal de Kingston (Ontario). Le symposium mettra en valeur les travaux des étudiants de doctorat et de maîtrise d'universités civiles et militaires. On y exposera la recherche de pointe de jeunes universitaires dans le domaine des études sur la sécurité et la défense, et des enjeux d'intérêt national et international y seront abordés.

Le symposium vise à resserrer les liens entre les établissements d'enseignement du secteur civil et ceux du secteur militaire. Comme orateurs principaux, nous aurons le sénateur Hugh Segal et le major-général Andrew Leslie.

Toute personne qui s'intéresse aux enjeux de la défense, nationaux et internationaux, est invitée à y prendre part. Inscrivez les dates du 28 et 29 octobre sur votre calendrier pour assister à une réunion stimulante des meilleurs jeunes penseurs militaires au Canada. Pour de plus amples renseignements, veuillez lire l'avis du symposium qui figure ailleurs dans la présente publication.

L'Institut de la Conférence des associations de la défense salue la Légion royale canadienne pour sa décision d'encourager le gouvernement du Canada à déclarer 2005 l'année de l'ancien combattant. Elle a donné à tous les Canadiens la possibilité d'exprimer leur gratitude pour les

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In this vein, we note with regret the passing, in August, of Sergeant Ernest Elvira (Smokey) Smith VC, one of Canada's best known veterans and last surviving Canadian holder of the Victoria Cross, the Commonwealth's highest award for bravery. Smokey's passing marks the end of an era. It is gratifying that the nation accorded Sergeant Smith VC the honour of placing his remains in the House of Commons for a rare lying-in-state ceremony.

ON TRACK readers will be pleased to learn that another veteran of note, Mr. G. Hamilton Southam, has been selected as the recipient of the Vimy Award for 2005. A veteran of the D-Day Landing, Mr. Southam is a distinguished Canadian who has exhibited the highest standards of leadership throughout his journalistic career and service to Canada. The Right Honourable Michaëlle Jean, Governor General of Canada, has been invited to present the award on 18 November, at a mixed formal dinner in the Grand Hall of the Canadian Museum of Civilization.

We congratulate Mr. Bruce Champion-Smith who has been selected as the recipient of the Ross Munro Media Award for 2005. Mr. Champion-Smith has consistently demonstrated the finest qualities of a journalist who specializes in defence issues. The Conference of Defence Associations, in association with the Canadian Defence and Foreign Affairs Institute, is the sponsor of the Ross Munro Media Award. The Award will be presented during the Vimy Award Dinner.

I am gratified that the Grand Hall is once again fully booked for this prestigious event.

sacrifices des hommes et femmes du Canada qui ont servi leur pays au nom de la liberté, liberté que nous prenons trop facilement à la légère en cette ère de prospérité.

Dans la même veine, nous avons le regret d'annoncer le décès, au mois d'août, du sergent Ernest Elvira (Smokey) Smith V.C., l'un des anciens combattants canadiens les mieux connus et le dernier récipiendaire canadien de la Croix de Victoria, la plus haute distinction militaire décernée au Commonwealth pour acte de bravoure. Sa disparition marque la fin d'une ère. Soulignons que la nation a conféré au sergent Smith V.C. l'honneur rare d'exposer sa dépouille en chapelle ardente à la Chambre des communes.

Les lecteurs d'*ON TRACK* seront heureux d'apprendre qu'un autre ancien combattant éminent, M. G. Hamilton Southam, a été choisi récipiendaire du Prix Vimy en 2005. Un ancien combattant qui a pris part au Débarquement, M. Southam est un Canadien distingué qui a fait preuve d'un grand leadership tout au long de sa carrière dans la presse écrite et au service du Canada. La très honorable Michaëlle Jean, gouverneure générale du Canada, a été invitée à remettre le prix le 18 novembre, à un dîner officiel mixte, qui aura lieu à la Grande Galerie du Musée canadien des civilisations.

Nous félicitons M. Bruce Champion-Smith, qui a été sélectionné lauréat du Prix Média Ross Munro en 2005. Il a invariablement fait preuve des meilleures qualités d'un journaliste se spécialisant dans les enjeux de la défense. La Conférence des associations de la défense, en collaboration avec le Canadian Defence and Foreign Affairs Institute, parraine le Prix Média Ross Munro, qui sera remis lors du dîner

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I wish to take this opportunity to welcome our new intern, Mr. Matthew Gillard. He is completing his master's degree in political science with a concentration in international relations. Matthew's topic is 'United States space weaponization and hegemonic stability theory'. He has taken up his one-year internship with the CDA Institute following the completion of his course work, first, at Memorial University of Newfoundland, followed by the University of British Columbia.

Focussing on the challenges that transformation of the Canadian Forces presents the government, today, we are pleased to feature in this edition of *ON TRACK* articles from our contributing writers that are reflective of global events that can bear an influence on Canadian policy.

It is notable that Canada is not alone, witnessing the decline in the capacity of its armed forces. Our Commonwealth friend and ally, Australia, has endured a similar experience in the 90's. In its efforts to transform the Australian Defence Force the Australian authorities have been facing a challenging experience during the past number of years. With thanks to the Editor of *defender*, the National Journal of the Australia Defence Association, we print an edited version of 'Easier said than done: At the six-year mark in remaking the ADF'. The author, Dr. Mark Thompson, outlines the factors that impact on the transformation of their Department of Defence and the Australian Defence Force (ADF).

Dr. Thompson provides us with an insight of the measures that have been undertaken to transform the ADF which, at the end of the last decade, was in the state of being 'fitted for but not with' the capacity to support *Defence 2000*, their Defence White Paper. Dr. Thompson is program director for budget and management at the Australian Strategic Policy Institute in Canberra. The complete text of 'Easier said than done: At the six-year mark in remaking the ADF' will be available at <http://www.ada.asn.au/defender.htm>.

The inclusion of 'Easier said than done: At the six-year mark in remaking the ADF' in this edition of *ON TRACK* is timely, given the release, in September, of the new study, '*Transforming National Defence Administration*', in the Queen's University Claxton Papers series on research in Canada's defence policy.

Earlier this year, the federal government stated its intention to radically transform and rebuild the Canadian Forces. Reaching these goals is greatly dependant on how national policy and the transformation of the Canadian Forces are administered. This *Claxton Paper* illustrates the deep difficulties in the present system of defence administration. The study points out that years of operational over-commitment and under-investment in national defence

du Prix Vimy.

Je suis heureux d'annoncer à tous que la Grande Galerie est, une fois de plus, complète pour cette manifestation prestigieuse.

Je profite de l'occasion pour souhaiter la bienvenue à notre nouveau stagiaire, Matthew Gillard. Il achève sa maîtrise en sciences politiques avec concentration en relations internationales. Son sujet de thèse est 'l'arsenalisation de l'espace par les États-Unis et la théorie de la stabilité hégémonique'. Ayant terminé ses cours qu'il a pris d'abord à l'Université Memorial de Terre-Neuve, puis à l'Université de la Colombie-Britannique, il assume son poste de stagiaire d'un an avec l'Institut de la CAD.

Ciblant les défis que représente pour le gouvernement la transformation des Forces canadiennes, nous avons le plaisir de présenter dans ce numéro d'*ON TRACK* des articles de nos collaborateurs qui portent sur les événements mondiaux qui peuvent influencer sur les politiques canadiennes.

Il est remarquable que le Canada ne soit pas seul à observer le déclin des capacités de ses forces armées. Notre allié et pays ami membre du Commonwealth, l'Australie, a vécu la même expérience dans les années 90. Dans le cadre de ses efforts visant à transformer la force de défense australienne, les autorités de ce pays ont été confrontées, au cours des dernières années, à un défi de taille. Avec nos remerciements au rédacteur en chef de *defender*, le journal national de l'Association de la défense de l'Australie, nous reproduisons ici une version abrégée de l'article intitulé « Easier said than done : At the six-year mark in remaking the ADF ».

L'auteur, Mark Thompson, y expose les facteurs qui influent sur la transformation du ministère de la défense et sur les Forces de la défense australienne. M. Thompson nous donne un aperçu des mesures qui ont été prises pour transformer les forces qui, à la fin de la dernière décennie, avaient les compétences — mais non les capacités — pour appuyer *Defence 2000*, le livre blanc sur la Défense. M. Thompson est directeur de programme du budget et de la gestion de l'Australian Strategic Policy Institute à Canberra. Le texte intégral de l'article figure à l'adresse Internet suivante : <http://www.ada.asn.au/defender.htm>.

L'inclusion de l'article « Easier said than done : At the six-year mark in remaking the ADF » dans le présent numéro d'*ON TRACK* est opportune, vu la publication en septembre d'une nouvelle étude intitulée *Transforming National Defence Administration*, dans le cadre de la série Claxton de documents de recherche sur la politique de défense canadienne, publiée par l'Université Queen's. Plus tôt cette année, le gouvernement fédéral a déclaré son intention de

continue to take the Canadian Forces on a perilous course of no-return where many essential capabilities may fail before they could be rescued. A prime example of this state of affairs is the Hercules aircraft fleet. The study concludes that the government must revamp major aspects of the defence administrative organizations, processes, and methods as an essential first step toward the transformation of the Canadian Forces. It is significant that the release of the sixth *Claxton Paper* has generated media interest. *Transforming National Defence Administration* is available at <http://www.queensu.ca/sps/defence/publications/ClaxtonNo6.pdf>.

In the Summer 2005 edition of *ON TRACK* we continued the discussion of the Regimental System with the article, 'Strong and Cohesive - The Canadian Army Ethos and Culture', by Colonel Mike Capstick, Director Land Personnel Strategy, National Defence Headquarters. In this edition a friend of the CDA Institute, Dr. John Eggenberger, has provided us with his article 'Air Force Ethos - then and now'. Dr. Eggenberger outlines the habits and dispositions that have proved successful for an aircraft's aircrew in combat that form the fundamentals of an air force ethos. He concludes with his answer to the question of whether or not the Air Force ethos can be illuminated using the same concept of an ethos, as expressed in an earlier article on the Army's ethos (go to <http://cda-cdai.ca/pdf/ontrack10n1.pdf>).

The history of the US - Canadian defence relationship since 1938 has been one of deepening cooperation on the basis of a continental partnership often expressed through binational institutional arrangements. In the article, 'Managing US and Canadian Defence in North America', Dwight Mason writes that it is time to renew the North American Aerospace Defence Agreement. He examines the problems of what could be the key elements of what may be an emerging understanding.

One of the problems Mr. Mason outlines is that of the resources of the Canadian Forces. He notes that no matter what level of funding is provided today, the lag times in equipment procurement and training capacity guarantee further declines in Canadian readiness and capabilities. In his conclusion Mr. Mason provides us with the most likely outcome of the NORAD renewal negotiations. This article is based on his presentation to the Maritime Conference in Halifax in June. Mr. Mason was, for a number of years, the US Co-chairman of the Permanent Joint Board of Defence during the Clinton administration.

In the Summer 2005 edition of *ON TRACK* Colonel (Ret'd) Howard Marsh, the CDA Institute's Senior Defence Analyst, questioned the appropriateness of Defence Policy Statement 2005 for the next decade, 2010-2020, in the

transformer radicalement et de remanier les Forces canadiennes. L'atteinte de ces objectifs dépend considérablement de la manière dont il va administrer la politique nationale et la transformation des Forces canadiennes. Le *document Claxton* illustre les énormes difficultés que connaît le système actuel d'administration de la défense. L'étude révèle que des années d'engagement excessif et d'investissement insuffisant dans la défense nationale mènent toujours les Forces canadiennes sur un sentier périlleux de non-retour, où bien des capacités essentielles pourraient faire défaut avant même qu'on ait pu les sauver. Un exemple révélateur de cet état de choses est celui de la flotte d'avions Hercules. L'étude conclut que pour transformer les Forces canadiennes, il est essentiel que le gouvernement commence par réorganiser d'importants aspects des organismes, procédés et méthodes administratives de la défense. Il est significatif que la publication du sixième *document Claxton* ait éveillé l'attention des médias. Le document, *Transforming National Defence Administration*, figure au site Web suivant : <http://www.queensu.ca/sps/defence/publications/ClaxtonNo6.pdf>.

Dans le numéro d'été 2005 d'*ON TRACK*, nous avons poursuivi le débat sur le système régimentaire dans l'article « Strong and Cohesive - The Canadian Army Ethos and Culture », rédigé par le colonel Mike Capstick, directeur de la stratégie du personnel de la Force terrestre, Quartier général de la Défense nationale. Dans le présent numéro, un ami de l'Institut de la CAD, John Eggenberger, nous a fourni son article, 'Air Force Ethos - then and now'. M. Eggenberger y expose les habitudes et les dispositions qui assurent la réussite de l'équipage d'un avion en combat, et qui forment les bases de l'éthos d'une force aérienne. Dans la conclusion, il répond à la question, à savoir si la philosophie d'une force aérienne peut être éclairée en ayant recours à ce même concept d'éthos, qui avait été exprimé dans un article précédent sur l'éthos de l'Armée (voir le site Web suivant : <http://cda-cdai.ca/pdf/ontrack10n1.pdf>).

L'histoire des relations canado-américaines en matière de défense depuis 1938 en est une de coopération de plus en plus poussée par le biais d'un partenariat continental souvent exprimé sous la forme d'ententes institutionnelles binationales. Dans l'article intitulé « Managing US and Canadian Defence in North America », Dwight Mason est d'avis qu'il est temps de renouveler l'Accord sur la défense aérospatiale de l'Amérique du Nord. Il se penche sur les problèmes que posent les éléments clés de ce qui pourrait constituer une entente naissante. L'un des problèmes que soulève M. Mason est celui des ressources des Forces canadiennes. Il indique que quel que soit le niveau de financement offert maintenant, le délai qui existe entre l'approvisionnement en matériel et la capacité de formation garantit une détérioration accrue de l'état de préparation et des capacités canadiennes. Dans sa conclusion, l'auteur nous offre l'issue la plus probable des

article, 'Defence Policy Statement 2005: A Defence Policy for the 1990s?'. In this edition, Colonel Marsh takes us further along in time with a picture of events - changes in the world's demographics and global economics - that trends indicate that are beginning to take place today. His article, 'Long Wave Theories and the Canadian Forces', is a fascinating read and should give one a reason to consider what effects global change could have on the transformation of the Canadian Forces.

Matthew Gillard, the CDA Institute's Intern has written 'Defending Canadian Sovereignty in the Arctic', an examination of two possible outcomes of global warming in Canada's Arctic region. Matthew has applied his analysis of the warming trend of the Arctic to the challenge that the Canadian Forces would face in ensuring the sovereignty of Canada's northern expanse.

With thanks to the editor of *FrontLine*, we are pleased to reprint 'STARTING OVER Expeditionary Capability Demands Flexibility', by Commander Kenneth Hansen. Commander Hansen writes that the role of any navy in power projection and manoeuvre warfare is to provide transportation for its sister services, to protect them en route, and to support them in the theatre of operations. He provides a very clear top-down assessment of Canadian maritime defence requirements. Commander Hansen is the Military Co-chair of the Maritime Studies Programme at Canadian Forces College.

Commodore (Ret'd) Eric Lerhe provides a comprehensive analysis of the current joint capability of the Canadian Forces and argues the rationale for addressing the resource requirements that would support their efforts to enhance that capability. In his article, 'Taking Joint Capability Seriously', Commodore Lerhe gives us a historical perspective on the participation of Canada's armed forces in allied operations and compares their successes (or failures) with the advantages that would arise from a greater joint capability of Canadian Forces in future deployments.

Colonel (Ret'd) Gary Rice has also identified the options that the federal government and the Canadian Forces might consider in their determination of amphibious force level requirements. In 'What Price Amphibiosity?', Colonel Rice cautions our military planners and government officials to resist any temptation they may have to 'situate the appreciation' by deciding in advance upon a specific vessel before they have done the homework to identify the lift required.

In closing, I wish to thank our donors for their financial support for the work of the CDA Institute. When we tell a donor the CDAI needs money, this is not asking, but saying that Canadian society wants and needs a safe and secure country;

négociations sur le renouvellement du NORAD. Cet article est fondé sur l'exposé que M. Mason a donné lors de la Conférence maritime qui a eu lieu à Halifax, en juin. Pendant plusieurs années, M. Mason a occupé les fonctions de co-président américain du Conseil conjoint mixte de la défense sous l'administration Clinton.

Dans le numéro d'été 2005 d'*ON TRACK*, le colonel (ret.) Howard Marsh, analyste principal de l'Institut de la CAD, a mis en doute la pertinence de l'Énoncé de la politique de défense 2005 pour la prochaine décennie, 2010-2020, dans l'article « Defence Policy Statement 2005 : A Defence Policy for the 1990s ? ». Dans le présent numéro, le colonel Marsh nous projette dans l'avenir en nous brossant un tableau des modifications de la démographie et de l'économie mondiales, et des tendances qui se manifestent déjà maintenant. Son article, intitulé « Long Wave Theories and the Canadian Forces », est fascinant et devrait nous encourager à tenir compte des effets que les changements mondiaux pourraient avoir sur la transformation des Forces canadiennes.

Matthew Gillard, stagiaire de l'Institut de la CAD, a rédigé l'article « Defending Canadian Sovereignty in the Arctic », qui examine deux résultats possibles des effets du réchauffement planétaire sur la région arctique du Canada. Il a appliqué son analyse du réchauffement de l'Arctique aux défis auxquels seraient confrontées les Forces canadiennes pour assurer la souveraineté de l'étendue nordique du Canada.

Nous remercions le rédacteur en chef de *FrontLine* pour nous avoir donné la permission de reproduire dans le présent numéro l'article « STARTING OVER Expeditionary Capability Demands Flexibility », rédigé par le commandant Kenneth Hansen. Ce dernier écrit que le rôle de toute force navale en matière de projection de puissance et de guerre de manoeuvre est de fournir des services de transport aux autres forces, d'assurer leur protection en route et de les appuyer dans les théâtres d'opérations. Il fournit une évaluation descendante très claire des exigences canadiennes de défense navale. Le commandant Hansen est co-président militaire du Programme d'études sur la marine au Collège des Forces canadiennes.

Le commodore (ret.) Eric Lerhe offre une analyse exhaustive des capacités interarmées des Forces canadiennes et débat des raisons motivant les besoins de ressources qui viendraient appuyer leurs efforts d'amélioration de ces capacités.

Son article, « Taking Joint Capability Seriously », donne un point de vue historique de la participation des forces armées du Canada aux opérations alliées et compare leurs réussites

that providing it is one of the tasks of the military; and that the donor can contribute to that peace and security with his or her financial support of the work of the CDA Institute. Please consider an increased contribution to the Institute.

Thank you.

(ou leurs échecs) aux avantages que conférerait une capacité interarmées accrue des Forces canadiennes dans le cadre des déploiements futurs.

Le colonel (ret.) Gary Rice a également cerné les options dont pourraient tenir compte le gouvernement fédéral et les Forces canadiennes dans leur détermination des besoins de la force amphibie. Dans son article intitulé « What Price Amphibiosity ? », le colonel Rice met en garde nos planificateurs militaires et les représentants gouvernementaux contre la tentation de « situer l'appréciation » en choisissant un navire donné sans même avoir établi la portance nécessaire.

En conclusion, je remercie nos donateurs pour leur appui financier des travaux de l'Institut de la CAD. Lorsque nous indiquons à un donateur que l'ICAD a besoin d'argent, nous ne demandons pas, nous lui disons que la société canadienne veut et exige un pays sûr et protégé; or, assurer cette sécurité est une des tâches des militaires. Un donateur contribue donc à la paix et à la sécurité grâce à son appui financier des travaux de l'Institut de la CAD. Veuillez envisager même d'accroître votre contribution à l'Institut.

Je vous remercie.

EASIER SAID THAN DONE: At the six-year mark

Dr. Mark Thompson, Program Director for Budget and Management at the Australian Strategic Policy Institute, Canberra, Australia

(With thanks to the Editor of defender, the National Journal of the Australia Defence Association - ed.)

The basic statistics from the Australian 2005 Defence budget are easy to recount. A total of \$A17.5 billion [= \$CDN 15.575, based on the exchange rate of \$A 1.00 = \$C 0.89, as of 28 September 2005 - ed.] will be spent next financial year. [This compares with \$CDN 14 billion for the Canadian defence budget - ed.] This is around \$A880

million more than 2004, and represents just less than 1.9 per cent of GDP. [The Canadian 2005 Defence budget represents some 1.0 per cent of Canada's GDP - ed] New funding measures include \$A420 million for our expanded and continuing role in Iraq, \$A300 million for extra capital investment next year, and \$A192 million over four years for improved security, including two additional Armidale class patrol boats.

As impressive as this sounds, it tells us little about what's actually going on below the surface. These figures give no indication of the progress towards transforming the Department of Defence and the Australian Defence Force (ADF) to meet the challenges of the future. And that is what really matters, given that over the last six years they have both been undergoing a profound transformation on two fronts. The first concerns the shape and posture of the ADF, and the second involves the internal management of the broader Defence organisation.

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Two transformations

At the end of the last decade, the ADF was well and truly ‘fitted for but not with’. After more than 15 years of defence funding being held effectively constant, the force was hollow, poorly prepared, and badly in need of equipment modernisation. Throughout the 1990s, Defence strove valiantly to free up money for capital investment and logistics through efficiency initiatives. But the rising cost of personnel and equipment soon outpaced the money made available through these measures. Even under the prevailing strategic guidance of the era this was a poor state of affairs. Indeed, while the guidance identified the need to hold sufficient forces ready for ‘short-notice’ contingencies, it is debatable whether this was actually achieved in practice.

In early 1999 it became clear that Australia would probably be called upon to make a significant contribution to a UN operation in East Timor. Urgent steps were taken to boost the preparedness of the ADF – and not before time. By September of ’99 we found ourselves leading a UN-mandated mission to restore peace and security to the nascent state of East Timor. At the operation’s peak, around 6,000 ADF personnel including three troop battalions were deployed.

East Timor was the wake-up call that led to the 2000 Defence White Paper. *Defence 2000*, as it was called, made four key changes. First, it explicitly rejected the notion of ‘fitted for but not with’ and instead directed that the ADF be made up of ‘fully developed capability’ that was ready to deploy at shorter notice. Second, it set a new goal for the size of the ADF – an expansion to 54,000, rather than a reduction to 50,000 as had previously been planned. Third, it set out a \$A50 billion decade-long program of capability development called the Defence Capability Plan. Fourth, and most critically, it made a commitment to 3 per cent real growth in defence spending across the decade. As a package, this represented the largest single force modernisation and expansion program since the mid-1960s build-up during the Vietnam conflict.

The goals of *Defence 2000* soon proved to be easier said than done. The first year of implementation saw Defence left with around \$A800 million lying idle in the bank. There were two reasons for this: First, Defence’s internal financial management was in a state of profound disarray. This was the result of several factors including the faltering introduction of new management information systems, the transition to accrual accounting and an effective collapse of the internal budget process. Second, the rapid growth in capital investment that was envisaged by *Defence 2000* was proving much harder to deliver than anticipated. This reflected not only shortcomings in the acquisition process but also the practical constraints of what industry could deliver in the short term.

Although no announcement was ever made, around 2003 a second transformation program began for Defence – from chaotic financial management and ineffective acquisition processes to disciplined stewardship of the defence dollar. In many ways, the ability to move from being ‘fitted for but not with’ to ‘fully developed capability’ was, and remains, contingent on substantial improvements to higher defence management and procurement processes.

The strategic environment had recently become more demanding, and more uncertain. This saw the ADF sustain a high operational tempo through Afghanistan and Iraq while troop numbers in East Timor only slowly declined. Then, in mid-2003, the deployment to the Solomon Islands in support of the federal police placed further demands on personnel and assets. This period also saw extra money flowing to Defence above the funding delivered by *Defence 2000*. This included a substantial boost to logistics of around \$A400 million yearly plus extra money for the ADF’s expanded role in domestic security amounting to around \$A200 million per annum. The latter was part of the Government’s much larger whole-of-government program of strengthened security. For Defence, this included additional personnel and resources for its intelligence and counter-terrorism response capabilities.

It was against this challenging and rapidly changing strategic environment that the goals of the 2000 Defence Capability Plan began to look more and more elusive. For three years, Defence found itself unable to spend the money it had available to deliver projects, while at the same time the cost of individual projects began to rise significantly, making the plan unaffordable in any case. To make matters worse, the strategic priorities of the 2000 White Paper had not been updated following the events of 9/11 and the strategic upheavals that ensued. Indeed, although the Minister for Defence released a strategic update in February 2003, it gave absolutely no indication of how the size and shape of the ADF might change. Thus, it was no exaggeration to say that by 2003 the Defence Capability Plan was undeliverable, unaffordable and uncertain.

Two reviews

In 2003, two major reviews were undertaken to get the Defence Capability Plan back on track. The first was the Defence *Capability* Review that examined the current and planned structure of the ADF. Central to this was a rewrite of the Defence Capability Plan in light of changed priorities, rising project costs and the practical constraints of what could be delivered. The second was the Defence *Procurement* Review that asked what was wrong with a system that too often delivered defence capability late, above budget and below specification.

The results of the Defence Capability Review were released in late 2003 and backed up with a new Defence Capability Plan in early 2004. Key changes to the existing force included the early retirement of two FFG class frigates, the mothballing of two newly acquired mine hunters, and the early withdrawal of the F-111 strike/reconnaissance fleet from service in 2010 rather than 2020. On the plus side was the decision to acquire main battle tanks for Army and a hefty boost to the size of new amphibious vessels planned for the Navy. The new Defence Capability Plan also changed a lot. While some new projects were added, the overall thrust was a deferral of when new capability would enter service.

The reduced funding for capital investment in new equipment reflected the realisation that Defence's acquisition agency, the Defence Materiel Organisation (DMO), was simply unable to deliver the original package of capability according to schedule. Moreover, the spending was not actually cut but rescheduled into the future. All up, around \$A2 billion was deferred from the first part of this decade to beyond 2008. In absolute terms this was not a major chunk of the \$A50 billion decade-long program, but it was \$A2 billion worth of capability for which the ADF would have to wait even longer.

To make sure DMO would be able to deliver the goods, the Defence Procurement Review recommended a widespread reform program to change the way DMO operated and to improve the way in which projects received approval. Of the procurement reforms, two stand out. On the acquisition side, DMO was to be re-established as a quasi-autonomous 'prescribed agency' (under the Financial Management Act)

to encourage a more commercially-oriented culture. On the project approval side a new and strengthened process was introduced to ensure that proposals are only approved once adequate work is done to refine project risk, cost, schedule and specification.

The 2005 budget

More important than any of the specific measures in this year's budget is what it said, albeit implicitly, about the ongoing changes to Defence's internal management and the transformation of the ADF itself.

On the financial management side things are looking up. The de-merger of Defence and DMO occurred on July 1, 2005. The de-merger puts the day-to-day, mainly base-level or rear-area, repair and maintenance of Defence's diverse equipment holdings on a much more business-like footing. The three services will buy sustainment services from the DMO via agreements that specify the level of support and its cost.

While the signs of progress are encouraging, more important was the opportunity afforded by the budget to judge the progress in delivering an ADF that meets the strategic goals of the White Paper. Unfortunately, here the news was mixed. Buried deep in the budget was an alarming fact: for two years in a row the ADF has fallen in size. While the reduction is small – less than 200 people over two years – it comes at a time when the ADF is trying to grow. The average funded strength for this financial year was almost 1,000 personnel below the target set in May 2004.

This comes after four years of focused spending on recruitment, retention and, to an extent, improved conditions for Service personnel. \$A400 million has been spent over the last four years and another \$A100 million will be spent this year. This includes specific initiatives to address the challenge of recruitment and retention next year. Unless something happens to turn this around, the ability to recruit and retain personnel will become the Achilles' heel of delivering a larger and stronger defence force.

Every bit as important as personnel is the new equipment needed to modernise the ADF. Here again the budget had mixed news. On the positive side, the reforms to the DMO appear to be gaining early traction and the results are showing. Unfortunately, while the ability of the DMO to spend money has taken a turn for the better, the rate at which projects are approved has reduced to a trickle. Only sixteen months after the revised DCP was released, the approval of projects is at least a year behind schedule.

There are probably several reasons for this delay, of which two stand out. First, the new more-rigorous process of project

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approval is taking a long time to establish. The second probable cause of delay is that our strategic priorities are once again up in the air. Indeed, only a year and a half after the Defence Capability Review, a campaign is being fought within defence and strategic circles, and in wider public debate, over the merits of a ‘networked and hardened’ Army rather than the predominantly light-scales land force we now have. Until this is resolved, the priority, cost and details of many projects in the existing Defence Capability Plan will remain uncertain and therefore unapproved.

Whatever the reasons, the disappointing result is that the ADF will probably have to wait even longer for the capability it needs. The best we can hope for is that one the new project approval process is up and running, we’ll be able to catch up a little. In the meantime, the revised Defence Capability Plan is growing more obsolete by the day as unapproved projects pile up.

The bottom line

Just as in 2002 and 2003, we face big uncertainties over the direction and feasibility of rebuilding the ADF. But in at least one respect the situation is worse. We are about to commence the fifth year of the ‘golden decade’ of 3 per cent real growth in defence spending and, despite vague hints in the media, we are yet to see any guidance on the level of defence funding past 2010. A year or two ago this was untidy, but we are rapidly reaching the point where the uncertainty hampers coherent long-term planning for the ADF.

Deciding on the level of long-term defence funding cannot be done in isolation. Even in just strategic and defence terms it depends critically on the priorities for the ADF and on the specifics of the Defence Capability Plan, and vice versa. The time has come to sort this out. Three things must occur in tandem:

First, we need some clear direction on the future roles and capability priorities for the ADF. Second, we need a new Defence Capability Plan that reflects the clarified roles and priorities of the ADF and takes into account what can be achieved given the time needed to approve and deliver projects under the new arrangements. Third, we need a renewed commitment from the Government on long-term defence funding. The only guidance Defence has past 2010 is that the budget will be held constant in real terms. For anyone who knows the history of defence spending, the phrase ‘constant in real terms’ sends a chill down the spine. That is how we got to the situation in the late 1990s where our defence force capabilities were so hollow, where modernisation was always a promise for the future, and the ADF was anything but prepared for the challenges that soon followed before it was ready.

The underlying problem is that there is no routine, annual, disciplined process for whole-of-government assessments of our strategic position, which would then flow on to updates of Defence’s strategic guidance, capability plan and long-term funding profile.

While good progress is being made to improve both financial management and the delivery of capability by the DMO, Defence’s core strategic and capability planning processes remain ad-hoc affairs, and not as integrated with a wider whole-of-government process as they should be. Now that the financial and procurements areas within Defence are getting their act in order, it is high time for strategic and capability planning to catch up. Otherwise it’s inevitable that the much needed and long overdue transformation of the ADF will continue to suffer delays, with all the wider strategic and operational risks this entails.

This is an abridgement of an article in the Winter 2005 issue of ‘Defender’, journal of the Australia Defence Association (>www.ada.asn.au<) (ed.).

Canada’s Air Force Ethos – Then and Now

John C. Eggenberger, OMM CD PhD

Recently, considerable interest has been expressed in knowing more about the phenomenon of ethos for our armed forces. To this end, the article “At Risk, The Canadian Army Ethos” was presented to the public in the Conference of Defence Associations Institute’s newsletter, *ON TRACK*. That article was founded in part upon the definition of ethos affirmed by Craig Calhoun, Ed. Oxford University Press, as does this.

The broad sense of the original term, “ethos” ... encompassed **habits, pre-dispositions, values and sentiments** –

Earlier and recent published documents extensively speak to values and sentiments, but little mention is made elsewhere as to the appropriate generation of habits and pre-dispositions that develop an ethos which will succeed in battle.

After the earlier article was published in *ON TRACK*, several persons asked: “What about the other services, Air Force for example – does the concept of ethos used as a foundation to express an Army ethos that works in battle lead to an understanding of an Air Force ethos that also works in an air battle. I thought it did, so I seized the opportunity to acquire relevant information about the experiences of a WWII Halifax bomber pilot Philip Holmes, DFC, whom I had been interviewing for the University of Victoria Oral History program. The idea was to use the information from some of

these interviews with Philip to illuminate the foundation of the Air Force ethos – and in addition, connect ethos with leadership.

In order to explore and understand our Air Force ethos that worked in battle, we need to review our own past – especially the past that is related to combat operations. For, as expressed in “At Risk, The Canadian Army Ethos”, “*It is what occurs on the battlefield, pure and simple, that imposes the structure and the ethos of an Army*”. The same holds true for Canada’s air force, whose battlefield is in the air.



Handley Page Halifax

A thousand-bomber raid was comprised of 1,000 individual bombers, each with a crew of 6 to 8 persons. For the Halifax, as shown above: the crew of an air force’s basic fighting unit, the aircraft, consisted of a Pilot, a Flight Engineer, a Navigator, a Radio Officer, a Bomb Aimer, a Tail Gunner and an Mid Upper Gunner.

The habits and dispositions that have proved successful for an aircraft’s aircrew in air combat form the fundamentals of an air force ethos. As a corollary - the totality of an air force formation’s ethos is simply multiples of a single combat crew’s ethos. In other words, the ethos of one combat crew would be much the same for another combat crew; and so on.

For an airman, habits and dispositions are developed by systematic training that brooks little variation from “perfect”. Individuals begin training at common start points – and during training never lose their individuality, character or personality. But, to succeed these persons learn to discipline themselves such that whatever they do as airmen, they attend to system and order - the foundation of their profession.

Check lists and standard operating procedures that oblige habitual behavior abound: from briefing – to flight planning – to aircraft walk around – to start up – to take off – to

climb out – to flight planned altitude – to mission – to tactics – to return to base – to descent – to landing – to shut down – to debriefing. Whether a crew member was a pilot, a navigator, a flight engineer, gunner, bomb aimer or “whatever”, the check list was king and the standard operating procedure was queen. And each crew member performed his/her specific set of checks and standard operating procedures such that the aircraft was tuned up to be in as good a shape to fight as it could be, at every phase of the mission.

Opined Holmes, confidence between members of a bomber crew was a critical factor in a successful bombing mission. Further, in his experience, this confidence arose from the demonstrated job proficiency of each of the members during training flights and subsequent bombing operations. In Holmes’ opinion, confidence was developed as a result of crews spending time together during non-flying time – recreational pursuits as

(continued p. 12)



Transforming National Defence Administration



The School of Policy Studies, Queen's University, Kingston, in cooperation with the Conference of Defence Associations Institute, announces the publication of the new study, *Transforming National Defence Administration*, in the Claxton Papers series on research in Canada's defence policy.

Canada's future defence policy and military capabilities were defined, in the spring of 2005, by the Liberal government's promise of a significant, multi-year funding allocation to national defence. This decision signals an intention to radically transform and rebuild the Canadian Forces. Reaching these goals are greatly dependant on how national policy and the transformation of the Canadian Forces are administered, not only within the Department of National Defence, but also in other government departments and in those central agencies responsible for significant programs related to national defence. Bringing policy intentions and administrative outcomes together is the next great challenge for the Government.

This *Claxton Paper* illustrates the deep difficulties in the present system of defence administration and makes these main points:

The study illustrates, beyond question, that years of operational over-commitment and under-investment in national defence continue to take the Canadian Forces on a perilous course of no-return where many essential capabilities may fail before they could be rescued.

Canada's national defence is the principal responsibility of government. But in many cases, defence policy and the needs of the Canadian Forces clash with other departments' policies, interests, and procedures, thereby delaying defence planning and adding costs to or even upsetting the production of, combat capabilities.

The fundamental purpose of defence administration is to efficiently and economically create, equip, and sustain the combat capabilities of the Canadian Forces. Any other policy interests, such as those which use defence funds to promote regional economies, detract from and may harm Canada's national defence.

A *national-level* reform of the administrative framework for national defence must bring forward fundamental changes that will streamline and modernize defence administration in Canada and allow it to more effectively support the transformation of defence policy and the Canadian Forces.

The study concludes that in order for the new defence policy to succeed, the government must revamp major aspects of the defence administrative organizations, processes, and methods as an essential first step towards the transformation of the Canadian Forces. The aim should be nothing less than to build, from the ground up if necessary, a modern, proficient, government-wide system of defence administration; a system that is responsive to the needs of the government and Parliament.

Neither vision nor hope can substitute for dollars spent and political will carried forward. If the government expects to halt the loss of defence capabilities and succeed in transforming the Canadian Forces in the next five years, then it must lead the process, direct the bureaucratic system to this end, and do so quickly.

The prime minister must lead this national effort and demand from ministers effective reforms that can be implemented quickly, efficiently, and economically. **This report is available at <http://www.queensu.ca/sps/defence/publications/ClaxtonNo6.pdf>**

well as barrack and messing experiences. When asked, "... when not flying, who did you hang out with?" Holmes replied, without a moments hesitation, "... with the crew." And, when asked – " what did the other crews do?", Holmes replied, "same thing – crews stuck together, partied together, did bike or walking tours together – as crews we did almost everything together – when in a pub in England, we invariably sat together, sometimes with other crews at the same table – but we seldom mixed with members of other crews." These experiences combined to generate, for Philip's crew, feelings of "bonding", "trust" and "cohesion". But, according to Holmes, these words were seldom if ever used during his wartime experiences to describe what went on during the development of a competent crew. Nor, according to Holmes, was the subject of leadership a topic for a classroom or hangar line session. Leadership as such was almost never mentioned; the word "command" covered it all.

In sum, confirmed by Holmes, the "*Responsibilities of the Military Officer*", noted below, pretty much conformed to what he actually experienced during training and combat operations. Without taking formal lessons, during training and combat operations, he learned to:

“Firstly;

- a) know, discipline and develop himself,
- b) know, discipline and develop his subordinates,
- c) know the objectives and be able to state them in terms his subordinates could understand,
- d) know of, and how to deploy, his resources,
- e) know the area of conflict,

Secondly,

- a) know the enemy's leaders, its personnel, resources and goals,

Thirdly

- a) defeat the enemy.”

During the interview, Holmes spoke with feeling about the tensions and fears all members of the crew had to deal with during the mission. Anxieties started well before briefing, because the target was not known to the crew until just before departure. The anxieties continued though flight planning, and to aircraft walk around. To illustrate, a singular part of the walk-around procedure was for the entire crew to gather round the tail wheel and piss on it just before climbing on board. Was this ritual simply a superstition, an affirmation of irony, of fist shaking at the gods, of irreverence, of the illogic of what they were about to do ...? Holmes wasn't sure – but whatever it meant, this ritual served them well to affirm their common fate as a crew – and in part caused the feeling that “if the other guy can get on board, then so can I”. Once on board, routine took over.

When asked – what did you value most in the members of

your crew – immediately came back the response, “... **being able to do their job, no matter the situation...**” When asked “what about courage, duty, loyalty, integrity ...”, he paused for a few seconds and said “well, if they could do their job, no matter the situation, they would likely have been courageous, loyal and have performed their duty with integrity”. Nicely put. Perhaps today we should simply look to whether or not the job expectations were met to judge a person.

Unfortunately, over the past thirty or so years, Canada's Air Force and Army have been affected by an increasing and overwhelming intrusion of systems and directives that tend to affirm the primacy of individual “rights” over the needs of the group. Also, the effect upon ethos of a lack of resources is plain to see. For instance, contracted-out pilot training will introduce habits and predispositions different from before, and when these change, so do values and sentiments. This example, as well as other intrusions and changes to the “way the air force does business”, have influenced the habits and predispositions, as well as values and sentiments of air and ground crew in unpredictable ways. All these changes, and more, may be signs that we can no longer be confident that the Air Force ethos of today will provide for success as did the ethos of Canada's Air Force crews of World War II.

Finally, the answer to the question as to whether or not the Air Force ethos can be illuminated using the same concept of ethos as expressed in the article upon the Army ethos in the CDAI newsletter ON TRACK is, to my mind, yes it can. It would be an error to conclude that since the activities of an infantry section/platoon bear no resemblance to the activities going on in a bomber crew, (or any combat aircrew), the outcome of a battle-developed ethos is therefore different. Found in this synopsis of an Air Force air battle based ethos was the same outcome as in the Army's land based battle ethos – while the habits and predispositions of the army and the air force are fundamentally quite different – these differing habits and predispositions lead to the same core values – courage, loyalty, duty and integrity.

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THE RECIPIENT OF THE VIMY AWARD

The Vimy Award is presented annually to one Canadian who has made a significant and outstanding contribution to the security of Canada and to the preservation of our democratic values. The Vimy Award Selection Committee has selected Mr. Gordon Hamilton Southam, OC, BA, LLD, as this year's recipient of the award.



The Vimy Award/La Distinction honorifique Vimy

Mr. Southam is a distinguished Canadian who has exhibited the highest standards of leadership throughout his career of service to Canada. The Vimy Award will be presented at a formal dinner that will be held in the grand Hall of the Canadian Museum of Civilization, Gatineau, Québec, 18 November 2005, beginning at 6:00 PM.

LE RÉCIPIENDAIRE DE LA DISTINCTION HONORIFIQUE VIMY

La Distinction honorifique Vimy est présentée chaque année à un canadien ou une canadienne ayant fait une contribution exceptionnelle à la sécurité du Canada et à la sauvegarde de nos valeurs démocratiques. Le comité de sélection du Récipiendaire de la Distinction honorifique Vimy a, cette année, choisi Monsieur Gordon Hamilton Southam, OC, BA, LLD, comme récipiendaire de la distinction Vimy.

Monsieur Southam, un canadien distingué, qui a démontré les

standards les plus élevés de leadership au cours d'une carrière consacrée au service du Canada. La Distinction honorifique Vimy sera remise vendredi le 18 novembre 2005, lors d'un dîner gala dans la grande Galerie, au Musée canadien des civilisations, à Gatineau, Québec, débutant à 18h.

Managing U.S. and Canadian Defense in North America

Dwight N. Mason

Summary

This is an important moment in the history of U.S. - Canadian defense cooperation.

It is time to renew the North American Aerospace Defense Agreement. It appears that the United States and Canada are working their way toward an improved and strengthened system for managing North American defense at home - a system that ideally would aim at a seamless and all domain defense.

Key elements of what may be an emerging understanding appear to be **first** an effort to achieve a shared all domain shared situational awareness including threat characterization

and warning for North America and its maritime approaches building on NORAD's aerospace experience and **second**, increased cooperation on land and sea either binationally perhaps through an expansion of NORAD's command structure or bilaterally through coordinated, parallel arrangements.

This is good news and timely. It builds on the past experience of the two countries in managing North American defense.

There are, however, problems. These include finding agreement among a number of different U.S. and Canadian government organizations with different missions,

resource issues and uncertainty about whether to build on the traditional integrated binational model (as exemplified by NORAD) or to use a coordinated, bilateral approach instead.

North America is a Single Theater

Traditionally, the United States and Canada have managed North American defense on a cooperative basis. This cooperation, indeed partnership, is based on the shared belief that North America is a single military theater.

This concept is a legacy of World War II. Its origin can be traced to an exchange of comments by President Roosevelt and Prime Minister Mackenzie King in 1938. The essence of these statements was that the US would not stand idly by if Canada were threatened and that Canada would not permit the US to be attacked from Canada.

These statements are the basis of the defense relationship we share today¹. As John McCallum, then Canadian Minister of Defence put it in Parliament on May 29, 2003, “At least since 1940 Canada has entered into a solemn covenant with the United States to jointly defend our shared continent.”²

Architecture of the U.S. - Canadian Defense Relationship.

The understanding formulated by the President and the Prime Minister in 1938 had the effect of permitting the creation of a system of defense cooperation that has expanded and deepened over time.

This process began at Ogdensburg NY in 1940. There the two leaders agreed to create an institution to coordinate United States and Canadian efforts to manage economic and related aspects of the war effort in North America. That organization was the Permanent Joint Board on Defense, Canada - United States. The word “Permanent” in the Board’s name was chosen carefully. In the words of President Roosevelt, the Board was not designed “...to meet alone this particular situation but to help secure the continent for the future.”³

The style of work the Board adopted was one of collegiality, partnership and consensus. And it was that style and the example of institutionalization that set the pattern for the future. The number of binational defense institutions expanded after the War to include the Military Cooperation Committee in 1946, NORAD in 1958 and the Bi-National Planning Group in 2002. Each of these organizations spread its own net of binational committees and working groups. What we have now is a dense and extensive defense architecture that is based on partnership and largely

expressed through binational institutions.

Lessons of 9/11: Need to Expand Focus Beyond Aerospace to all Domains.

Among the lessons of September 11 was not only a reminder that North America is a single theater but also that the U.S. - Canadian defense of that theater requires an expansion of focus from the aerospace domain now managed by NORAD to land, internal waters and the maritime approaches to North America. Our single theater has become larger and vastly more complex and rich than it was in 1940.

The initial United States response to this post September 11 situation was to create a new, unified command—the U.S. Northern Command (NORTHCOM) and the Department of Homeland Security. In both cases the idea was to rationalize a number of separate programs and responsibilities.

The commander of NORTHCOM assumed the binational continental defense planning responsibilities formerly exercised by the U.S. Joint Forces Command. It was clear that there had to be a close relationship between NORAD and NORTHCOM in view of NORAD’s continental aerospace responsibilities. So the President appointed the U.S. general officer who was the commander of NORAD to be the commander of NORTHCOM as well. One effect of this decision was to place all binational planning for North American defense at Colorado Springs since NORAD already had the aerospace portion.

This decision also set the stage on the US side for the possible expansion of NORAD to land and sea domains since NORTHCOM is a unified command.

Canada also reexamined its security and defense practices, and, in December 2003 created a new agency Public Safety and Emergency Preparedness Canada (PSEPC). This organization does not exactly parallel the U.S. Department of Homeland Security but comes close. It is intended to achieve much the same kind of coordination.

Finally, in the spring of 2005, the Canadian Minister of Defence announced that Canada was going to establish a “single national command structure....”⁴ This approach closely resembles the US unified command system.

A New North American Defense System.

Thus, it appears that Canada and the United States have evolved new and parallel unified systems for dealing with the

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new military and security threats to North America. This parallelism has the potential to facilitate and broaden cooperation. And the need to renew the NORAD Agreement offers a convenient and timely moment for doing so.

Both countries seem to be generally in agreement with respect to the expanding and rationalizing threat characterization and warning beyond aerospace to include the land and maritime domains.

While there may be a basis for agreement on continental defense planning and all domain awareness, thinking appears to be less developed on how to manage continental defense operations in the additional domains of land and sea. There appear to be several choices: Expand NORAD, expand NORTHCOM in some fashion, create a new North American Defense Agreement building on NORTHCOM and NORAD or manage the defense of land and sea domains separately but try to coordinate those efforts bilaterally.

Essentially the choice is between seeking a unified binational command structure for North America or of managing land and sea domains on a unified basis in each country but not in an integrated manner in US and Canadian terms. It is hard to see how this latter approach could achieve a seamless and all domain continental defense. It also seems inconsistent with each country's new stress on unified command structures in North America.

Canada seems to be ahead of the United States in its public thinking about this question. In his speech in Syracuse in April, the Canadian Minister of National Defence addressed this subject. He said, "We believe that it is an appropriate time to consider the possibility of expanding our current defence cooperation to include maritime and land-based elements. NORAD's current mandate is to respond to aerospace threats to our continent....We believe that our current arrangement needs to be more comprehensive."⁵

It seems that most thought about expanding United States - Canada defense cooperation in North America beyond aerospace has focused on the maritime domain. This is reasonable given the long history of US and Canadian cooperation in that area.

Problems:

But there are problems in the maritime area. The approach of each country to coastal and internal waters security and defense is different. These differences are significant. They create doctrinal, legal and information sharing issues. The responsibilities of the two Navies, for example, are not

congruent in this area. Working out an effective United States - Canada maritime security régime presents real bureaucratic and management challenges.⁶ But, on the other hand, the very existence of these problems and the barriers they present to improved defense is the best reason to seek broader maritime cooperation. Nevertheless, these problems are sufficiently large to make expansion of NORAD's command structure to the maritime domain improbable at present.

The second problem is resources. The resource problems of the Canadian Forces are well known. The latest budget promises significant improvements, but they are insufficient to correct fundamental capital deficits or cover current costs. And, in any event, no matter what level of funding is provided today, the lag times in equipment procurement and training capacity guarantee further declines in Canadian readiness and capabilities for at least the next five years.

The resource situation of the Canadian Forces - a situation resulting from Canadian government policy choices over many years - casts some doubt on whether or not the Forces will be able to cooperate effectively, not to mention more expansively, in the defense of North America in the future.

A third problem is bureaucratic. Some of the bureaucratic difficulties associated with increased integration of North American maritime defense have been noted above. There are also others including some informal reluctance in NORTHCOM to the idea of increasing NORAD's role and mission lest that diminish or complicate NORTHCOM's mission. In Canada the Government has agreed to an imaginative plan to restructure the Canadian Forces. Adding a new binational structure at this time, would probably be a larger burden than the Government and the Forces could manage.

A final problem is political. It seems doubtful that the current Government of Canada would want to open the Pandora's Box of political issues such a new continental command structure would present.

An Important Moment in the U.S. - Canadian Defense Relationship.

The history of the US - Canadian defense relationship since 1938 has been one of deepening cooperation on the basis of a continental partnership often expressed through binational institutional arrangements. We are now at a moment when another expansion and deepening of that relationship is indicated and seems likely.

While an all domain, unified and bilateral approach to North American defense would be ideal and was a recommendation of the Bi-National Planning Group, bureaucratic and political

realities suggest that it is not likely that the U.S. and Canada will agree to expand NORAD's operational mission or to create a new, expanded North American command in the immediate future.

The most likely outcome of the NORAD renewal negotiations looks like a renewal of the Agreement and an expansion of NORAD's threat assessment and warning responsibilities to include the maritime approaches of North America. This would be a welcome development in its own right and would fit the traditional pattern of continued North American defense integration.

Still, a decision to expand U.S. -Canadian defense cooperation at home on a bilateral basis is also a departure from past practice. Thus, a matter to watch going forward is what ultimately happens to NORAD's operational responsibilities in air defense. It is possible, for example, that in the longer run NORAD could become a planning and warning system while operational matters revert to the two unified commanders on each side of the border.

Footnotes:

¹ J.L. Granatstein, «A Friendly Agreement in Advance: Canada-U.S. Defence Relations Past, Present and Future, *Commentary: The Border Papers*, (Toronto: The C.D. Howe Institute, June 2002), p.3.

² John McCallum, Minister of Defence, Hansard #108 May 29, 2003 at 1100 (electronic version). http://www.parl.gc.ca/37/2/parlbus/chambus/house/debates/108_2003-05-29/han108_1100-E.htm#Int-573425 Accessed 5/20/05.

³ J.L. Granatstein, «Mackenzie King and Canada at Ogdensburg, August 1940» in Joel Sokolsky & Joseph Jockel, *Fifty Years of Canada-United States Defence Cooperation*, (Lewiston N.Y.: Mellen Press, 1992, p. 21.

⁴ Bill Graham, *Remarks at Syracuse*, p. 9.

⁵ Bill Graham, *Remarks at Syracuse*, p. 8.

⁶ For an excellent discussion of these complexities, see Joel Sokolsky, «Guarding the Continental Coasts: United States Maritime Homeland Security and Canada,» *IRPP Policy Matters*, Vol 6, #1, March 2005. <http://www.irpp.org/indexe.htm> Accessed 5/20/05.

IN REMEMBRANCE

Ernest Alvia (Smokey) Smith, VC, CM, OBC, CD



Smokey Smith, VC, following the Ceremony of Remembrance in Agira, Sicily, with his Aide-de-Camp, Master Corporal Bud Dickson, October, 2004

Long Wave Theories And the Canadian Forces

Colonel (Ret'd) Howard Marsh, CDAI Senior Defence Analyst

“History does not repeat itself; it rhymes”...Mark Twain

In my last article, I questioned the appropriateness of Defence Policy Statement 2005 (DPS 2005) for the next decade, 2010-2020. In that article, *ON TRACK*, Vol. 10, No 2 (Summer 2005), I pointed out that defence policy writers have a 0.150 batting average—only once in the last seven decades did Canada have the right defence policy for the subsequent decade, e.g. the 1987 Cold War investment policy was inappropriate for the New World order of the 1990s, and the 1994 disarmament policy proved inappropriate for the 2000s War on Terrorism. I concluded that DPS 2005, with its emphasis on 3D (defence, diplomacy, development) expeditionary capability, transformation and expansion, is likely to be inappropriate for the decade of the 2010s.

Given Canada's propensity for selecting defence policies that miss the mark, it seems appropriate to examine why this should be so, and to suggest what would constitute a more appropriate defence policy statement.

The Canadian defence policy development process is a consensus building exercise. As a result, what is easier to achieve consensus on - current realities, as opposed to future imponderables - becomes the basis for policy formulation. The 1987 defence policy statement “Challenge and Commitment” serves as a powerful illustration of the weakness of consensus in the policy development process. Defence policy planners agreed that the Warsaw Pact was the predominant threat, and that addressing Canada's capability-commitment gap to NATO was of prime importance. Few, if anyone, were monitoring the influence of the Pope and the Information Age on communist Russia. The end of the ‘peaceful’ Cold War and the emergence of a militarily demanding New World order surprised most, if not all. The Canadian Forces in general, but specifically the operational elements and their families, paid dearly for the 1990s defence planners' lack of forethought.

A longer view that carefully weighs non-military determinants must therefore be taken. In addition, Canada's policy development scenario alerts us to be prudent in asking for opinions. Too much input from too many near-term thinkers and advocates further hinders forethought. Strategic consensus leads to a common denominator that all can accept; it does not necessarily alert the government to the most likely future scenario.

This, then, is the weakness that besets Canadian defence policy formulation—the broader and deeper the consensus, the larger the strategic common denominator; and like all fractions with large denominators, the product is very small. In Canada's defence policy equation, the product enjoys a 15% success rate. The current defence policy planners of DPS 2005 have achieved the new strategic common denominator: it comprises the War on Terrorism, transformation, and the expansion of the armed forces.

Given Canada's batting average, let us take a longer view by looking further back in history. Let us also look more broadly by examining the strategic determinants that shape military response. Are there any unheeded strategic determinants that are about to render DPS 2005 null and void?

My aim, in this brief article, is to offer another strategic approach to the development of Canadian defence policy that is derived from the rhythm of the dominant forces of economics. These rhythms are often referred to as Long Waves, theories about which serve to remind us of largely forgotten, repetitive determinants that revisit nations every other century.

There are a number of Long Wave proponents, of which the best known is the Marxist economist Kondratieff. His analysis of capitalism provides a model that links market trends and history. Others have taken his market-based work and built models predict the occurrence of economic and social disruptions.

Within the ‘long-wave’ community of analysis there is no consensus as to whether economics is a reliable predictor of conflict, but the same community does share the notion that economics, innovation and politico-social options tend to cycle. My summer reading on long-wave theories alerted me to the seven historical approaches to ‘waves’ and the sub-classification of long-waves and super long-waves. The latter which examine events in periods of hundreds of years, have more data than the waves of 50-100 year duration.

In the super long-wave category, I found the books of David Hackett Fischer the economist (*The Great Wave*) and Donald Kraybill, the social philosopher (*The Upside-Down Kingdom*) to be particularly insightful. Both authors use millennium time scales, yet each examines repetitive economic and social behaviour from the perspective of his own speciality.

The authors alert the reader to the presence of a socio-economic, correction (collapse and rebuild) pattern that is endemic to societies that invest, innovate and exploit human and natural resources. The most recent period of correction occurred in Europe and North America circa 1750-1820. The oldest recorded correction occurred circa 1250 B.C. in the Middle East. What is of great interest is that the same indicators are evident at each correction, but are ignored by the key decision-makers until the correction becomes a crisis.

Historical trends and key economic forces indicate that the world in 2005 has already entered this era's correction, but we are waiting for the crisis indicators before the correction is acknowledged.

Allow me to briefly list some of the major socio-economic indicators that signal the approach of a correction.

- **A significant drop in youth population:** We no longer suffer plagues and pestilence, but since 1980, the Western world and China have effectively eliminated 30% to 50% of the next generation (future human resources) through restricted, deferred and aborted procreation. A labour and consumer shortage is a key indicator of a correction. Europe leads in this indicator with the "4-2-1" phenomenon—four grandparents have two children and one grandchild. One wonders what one child does with the inheritance of three homes. Currently in eastern Germany some cities are bulldozing their suburbs for lack of people and too much vacant real estate.
- **Inflation:** Throughout the last century, inflation has exceeded all historical norms. Since 1973, a key energy driver - the price of a barrel of oil - has inflated from \$3.00 to \$60.00 (500% in real terms). Likewise real estate has inflated at five times economic growth. Excessive inflation of essential commodities is another indicator.
- **Depletion of natural resources:** Widespread depletion is a hallmark of earlier corrections.
- **Excessive concentration of wealth:** This traditionally leads to deprivation of the general population and limits innovation and markets essential to economic growth. In addition to global imbalances among nations, the concentration of wealth in developed countries mirrors that of 1750 England. At present, the wealthiest 5% of Canadians pay 95% of personal income tax. In Europe and Japan it is reported that the economic challenge to get started in life is so great that the majority of young people have given up marrying and procreating. Canada concentrates its wealth in medical care of the elderly. This approach has produced, as a by-product, student debt, youth poverty and restricted futures.

- **Most procreation takes place outside of traditional families:** In the 1990s, the USA had the same outside-of-family-birth rate as France did before the 1789 Revolution.
- **Climate change:** This is not a new phenomenon. A lack of investment in innovation and the exploitation of natural resources stresses climate systems. The earth is currently experiencing global warming and related crop failures. During the last correction, global cooling was the concern, as heavy rains and cool weather of the 1810s caused crop failures and migration, especially in Canada (to the USA). The climate change of 1250BC (initiated by pottery kilns) turned Middle East forests into deserts.
- **New diseases and pestilence:** These emerge when eco-systems and immune systems are stressed.
- **Random acts of violence and the constant fear of conflict:** These haunt populations during corrections.
- **Leadership's lack of awareness:** Populations are ill-prepared when leadership is unaware that economies are in a transition from inflationary to deflationary models. No one wishes to tackle the issue. Denial of a correction is a perennial hallmark.
- **The rich get richer:** During the latter stage of the correction, the rich get richer; the poor get poorer; and personal, government and corporate debt becomes excessive. Global debt is now estimated at \$30 trillion. Fifteen trillion of that debt is 'secured' by over-inflated real-estate. Much of the remaining debt, especially the North American portion of it in the approximate amount of \$6 trillion in consumer credit card debt, is unsecured.

If I have persuaded you that the globe is in the denial phase of this era's correction, then the characteristics of the latter crisis stage should be of much interest to defence planners.

The crisis phase of the correction starts with deflation. Given the over-inflation of real-estate, especially in Europe, deflation of housing prices is likely to be the first measurable indicator that leadership cannot ignore. In Canada, the number of soon-to- retire baby boomers who want to downsize their accommodation will shortly exceed the number of prospective house buyers. In addition, those born in the "Roaring 20s" are approaching the end of life. Some neighbourhoods, in retirement cities like Peterborough, Ontario, have many houses owned by those over 80 years of age. In the next few years, death, retirement and the low procreation of the 1980s should produce surplus real estate in most Canadian cities, and a concomitant drop in real

estate values. A drop in perceived wealth results in lower consumer confidence; fewer purchases and fewer consumers would combine to deflate Canada's service and consumer based economy. Since real-estate values are the foundation of municipal taxes, Canada's major cities—the economic engines of Canada—would be in difficulty.

Equally, federal and provincial tax revenues based on consumption and income would experience a decline, and slide into deficit budgeting, assuming the money could be borrowed. Attracting and even finding investors is a challenge when the same situation visits most of the globe. Historical corrections are really big events that take 50-70 years to digest. (The reader is encouraged to read Fischer's book, *The Great Wave*, to gain perspective. The depression of the 1930s is viewed as a market correction!)

Should this deflation become obvious within the next few years then by the middle of the next decade, DPS 2005 will have little or no meaning. Angry, resentful and selfish people who have lost their retirement nest eggs, embittered unemployed service industry workers and a coddled generation raised with high expectations will have little or no appetite for 3D in foreign lands, and in Canadian Forces' transformation and expansion. Sustaining the economic and social-welfare fabric of Canada will absorb most, if not all, tax revenue. The department of national defence is likely to

survive, albeit in reduced or amalgamated form. Protection of Canada's natural resources and internal security would become the main planks of defence policy during the next historical correction. The fallout of a devalued US dollar and a nasty USA-China economic war would dominate the international component of Canada's foreign and defence policies.

In my estimation, then, the global and North American economies are demonstrating the historical indicators of a super long-wave economic and social correction. Soon the crisis phase, marked by the onset of deflation, a shortage of consumers, and reduced tax revenues, will manifest itself in most countries, including Canada. In this future scenario for the 2010s, Canada's military should plan to protect natural resources (sovereignty-centric), prepare for internal security challenges, be prepared for a less friendly, poorer neighbour and a USA-China economic struggle, and function on a much reduced budget.

At this time defence planners need to balance the designs of DPS 2005 with the strong possibility of dramatically reduced resources within ten years. Now is the time to strengthen the essential elements of Canada's loyal and disciplined force-of-last-resort and eliminate virtually everything else. Transformation should be initiated with the understanding that enhanced military capability must be sustained on a much reduced future defence allocation.

Defending Canadian Sovereignty in the Arctic

Matthew Gillard, CDAI Intern



The government has not attempted to explain whether Canada's Arctic strategy is effective, in the face of current and future challenges to our sovereignty. Rather, the government has chosen simply to describe its Arctic policies and imply that these can adequately defend Canadian sovereignty, while refraining from providing any

further explanation. In the absence of such elaboration, it is all the more important that we examine our government's current Arctic strategy to determine if it is effective.

A necessary first step is to ask whether Canada's sovereignty in the Arctic is in fact at risk. Parts of the Arctic maritime and territorial boundaries claimed by Canada are contested by Russia, Denmark, and the US. Most notably, the US claims that the Canadian portion of the Northwest Passage, a

potentially valuable shipping route linking North America to Asia, is an international waterway, rather than internal Canadian waters subject to Canadian control. Nonetheless, despite the occasional crisis, Canada and its Arctic challengers have generally been content to leave these claims unsettled, largely due to the fact that many parts of the Arctic are covered in thick ice. Only ships with specialized icebreaking hulls can cut through it, and even then only during the warmer months of the year.

Given the thick ice cover, even though the Arctic has a rich supply of resources and several potentially valuable shipping lanes, it has not become a hotbed of commercial activity. However, the Arctic appears to be strongly affected by global warming. This is a cause for considerable concern, since rising temperatures are already reducing Arctic ice, which may make the North more attractive for international shipping and resource extraction. Other countries could then become more eager to press their claims against Canada's sovereignty.

Despite the undeniable evidence that the ice in the Arctic is melting at an unprecedented rate, there is currently no way of knowing whether this will occur to such a degree that commercial shipping and resource extraction will become viable activities. Analysis of the level of threat that Canada faces in the Arctic is therefore subject to considerable uncertainty.

When analyzing in conditions of high uncertainty, it is useful to examine specific scenarios. These potential occurrences can provide insights that provide a useful basis for further analysis. For this essay, the following scenarios are examined:

- 1) Arctic ice is melting quickly, but not at a pace that causes serious and immediate threats to Canadian sovereignty in the Arctic, and
- 2) the ice cover in the Arctic is melting so rapidly that the government faces serious and immediate threats to its sovereignty in the Arctic.

Each of these situations suggests different approaches to the management of sovereignty challenges. In the first scenario, the government can afford to devote relatively few resources to addressing potential Arctic sovereignty threats, at least for the time being. However, the second scenario suggests that the government should immediately start to allocate a relatively large amount of funding into developing Arctic surveillance and interdiction capabilities, since asserting Arctic sovereignty would require the ability to locate, deter, and (if necessary) forcibly remove uninvited encroaching ships. Therefore, at the very least, the second outcome indicates that the government should update Canada's aging coastguard icebreaker fleet, strengthen DND ship hulls to allow them to cut through thick ice, improve our dismal Arctic reconnaissance capabilities, and develop military skills, equipment, and procedures for Arctic operations.

The strategy that the government has adopted seems to be more appropriate for the first scenario than the second, since the government is devoting a relatively low level of resources to Arctic sovereignty protection. Canada has no DND vessels with ice-cutting hulls and our government has not committed itself to replacing its aging coastguard icebreaker fleet. Furthermore, the government has not announced plans to strengthen hulls of DND naval vessels to make them more ice resistant. However, the government has stated that it will improve the communication ability of the Canadian Rangers, modernize its Aurora surveillance aircraft, and use the RadarSat-2 satellite being launched next summer for Arctic reconnaissance. Even with these changes, the government will still nonetheless have relatively weak Arctic surveillance capabilities.

The first scenario has merit for several reasons. First, there is cost. It is extremely unlikely that all of the ice will disappear in the Arctic (at least for a very long time). Rather, over the next several decades, ice cover will decrease in certain parts of the Arctic for longer periods of the year. Since ice will likely continue to remain in the Arctic (even during the warmer summer months), ships with sufficiently strengthened hulls and/or icebreaker escorts will be needed to help other vessels traverse the Arctic. This increases the overhead costs of shipping. Additionally, ice cover makes resource extraction difficult and costly. Furthermore, traveling through ice drastically increases travel time and therefore cost.

Second, ice voyages can be dangerous, causing potential shippers and resource extraction companies to be wary of the extra risk. This can cause shippers and resource seekers to be worried about the prospect of incurring extra costs due to time delays or to loss of goods.

Third, the degree of ice cover in the Arctic, even during periods of heavy melting, will likely vary from year to year. Consequently, in one year, it could be economically feasible to operate in a given area of the Arctic, whereas in the following year this may simply not be the case. Since companies generally want to ensure that a constant flow of goods reach their intended destinations, this sort of uncertainty can be a deterrent to economic exploitation of the Arctic. For example, if an automobile manufacturer knows that it sells about 1000 cars in a given region of the world in one month, it wants to ensure that at least that many will continually arrive in that region each month.

While the first scenario has merit, so does the second. Although costs, risk, and uncertainty will likely still discourage large-scale commercial shipping, it may not preclude the shipping of certain items on an infrequent basis (for example, a company interested in a one-time deal to transport a ship from North America to Asia). However, such shipping will likely be infrequent and of relatively low economic value, unlikely to lead to an aggressive challenge to Canada's Arctic claims. Nevertheless, even infrequent shipping in the Northwest Passage could be detrimental to our sovereignty, since the passage of only a few vessels could in fact weaken Canada's legal position that this is not an international strait.

The second scenario is also of interest because costs and uncertainty may not prevent resource extraction for highly valuable goods. I define "high value goods" as resources that are so valuable that companies would be willing to pay the added costs of extracting them from the Arctic. Although it is exceptionally difficult to determine whether any such

resources will in fact exist, some may emerge, depending on price fluctuations and the depth of reduction of ice coverage.

This analysis suggests that the prospect of large-scale commercial Arctic shipping is not a pressing threat for the time being. This is helpful, since it would likely increase rival claimants' desire to secure their own interests in the Arctic at the expense of Canadian sovereignty claims. Nonetheless, the government's current Arctic strategy is inadequate for all but infrequent shipping and resource extraction, due to our limited Arctic reconnaissance and interdiction capabilities.

Given the current state of the Canadian Forces, it would be very hard to adopt a highly assertive Arctic strategy. Although our troops are among the best trained soldiers in the world, the Canadian Forces is facing a sustained and crippling crisis of diminishing military capacity brought about by over a decade of inadequate defence spending. While Canada *might* face problems in the Arctic that require immediate response, the Canadian Forces capacity crisis exists right now and necessitates robust action.

Canada's ability to defend its sovereignty can be improved somewhat by addressing the current military crisis. New aircraft acquisitions could be devoted to Arctic

reconnaissance. If Canada continues to maintain a high tempo of overseas operations, however, such new equipment will probably be needed abroad, ensuring that it would not likely see service in the arctic in the near future. The government may nonetheless be able to divert them to Arctic operations if a crisis develops. Additionally, by building icebreaking ability into some of its future ships, the Canadian Forces could give Canada the ability to exercise Arctic sovereignty protection operations should the need arise.

Our government's current strategy involves a minimal effort to improve Canada's Arctic reconnaissance and interdiction abilities. This is not an optimal strategy, since Canada may well have to worry about sovereignty challenges arising from infrequent shipping and resource extraction, even in the short term. Nonetheless, given the current state of the Canadian Forces, a better strategy is scarcely acceptable. The pace of global warming and the pricing trends of resources available in the Arctic may ensure that our sovereignty will not be threatened. Alternately, global warming and market prices may well proceed in a manner that buys Canada enough time to fix the current capacity shortfall and start devoting more resources to sovereignty protection. But there is another possibility: in the coming years, Canada may face a serious, sustained effort to weaken our sovereignty because we are unprepared for the challenge. Time – and our level of willingness to fix the capacity crisis – will tell.

Starting Over

Expeditionary Capability Demands Flexibility

Commander Kenneth Hansen, Military Co-chair, Maritime Studies Programme, Canadian Forces College

(‘Starting Over – Expeditionary Capability Demands Flexibility’ was originally printed in the Mar/Apr 2005 edition of Frontline, and is printed here courtesy of the Editor of Frontline magazine – ed.)

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

Canada's current naval capabilities were designed to satisfy the demands of very different defence requirements from those that exist today. To properly assess Canadian maritime defence requirements in the new geo-strategic security environment, it is necessary to go back to those first principles and see what capabilities a top-down assessment produces.

Seaworthy, and blessed with high endurance, frigates are ideal for open ocean operations but are too large and expensive to

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

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

simple coordination activities to delivering Naval Fire Support.

Canadian naval experiences during the Second World War and in Korea showed that the close inshore environment is complex and dangerous.

Modern trends in maritime traffic density, weapon technology, and the development of asymmetric threats all indicate that the littoral zone has broadened and now includes several sub-zones, each with unique challenges and dangers.

Canadian 5,000- to 6,000-tonne warships are too large and unwieldy to venture close inshore for joint support tasks. Yet, Canadian destroyers and frigates have neither the sensors nor the weapons to function effectively from further offshore. The object in expeditionary warfare is to establish an extended network of sensors and vehicles, both manned and unmanned, to provide surveillance of the littoral zone and ensure responsiveness to any need. For navies, the networked C4ISR system is the traditional and most effective method of countering both symmetric and asymmetric threats.

Naval command and control in the littoral zone is the most demanding task in joint warfare. Advanced sensors, highly reliable communications, sophisticated information processing systems, and long-range precision weapon systems are needed to assure the safety, coordination, and effectiveness of joint operations. These can only be accommodated in a major warship that must not be hazarded by unnecessary inshore excursions. Moreover, the area of naval control must extend all the way to the shoreline – to exercise this requirement, highly manoeuvrable and, quite frankly, expendable, small warships are needed to venture boldly wherever the need arises. Fortunately, high endurance and good sea kindliness can be designed into minor warships.

Logic dictates that manned air vehicles should be based onboard large, high value ships, while small warships are the ideal platform for remotely piloted air, surface, and subsurface devices.

The Canadian fleet now finds itself in an awkward ‘no-man’s-land’, composed of warships too small to accommodate the staff, sensors, and weapons needed to perform effectively in the outer littoral zone, but too large to be risked in the inner littoral zone. If a major Canadian contingent is to be transported for an expeditionary operation, simple geo-physical facts will dictate that it most often will travel by sea. To protect it adequately, both while en route and at its destination, and to support it with the necessary services that only naval forces can provide, the force structure of the Canadian navy will need to be diversified.

The safe assumptions of the past are gone and the price being paid for naval specialization is manifesting itself daily. The new joint expeditionary environment will require a very few large warships to ensure that Canadian authority commands and protects the expeditionary force. A relatively large number of small warships, both surface and subsurface, are required to extend the networked array of naval sensors and weapons about the joint force. This force structure will actually serve Canadian national requirements better, and at less cost, than the current fleet of medium-sized warships and undersized patrol craft.

It’s time to start over with a new fleet plan; one that provides the flexibility and capability needed to meet the daunting challenges of today and the future.

Commander Kenneth P. Hansen is the Military Co-chair of the Maritime Studies Programme at Canadian Forces College in Toronto. He has served in a number of destroyers and frigates of the Atlantic Fleet, and as a staff officer with the 1st Maritime Operations Group.

(The views presented are attributable solely of the author and are not to be construed in any way as declarations of policy by the Government of Canada, the Department of National Defence or the Canadian Forces, the Canadian Forces College, or any member of the Canadian Forces other than the author.)

Taking Joint Capability Seriously

(A dramatically shortened version of the original article that appeared in *The Canadian Naval Review*, Vol 1, Number 2, Summer 2005)

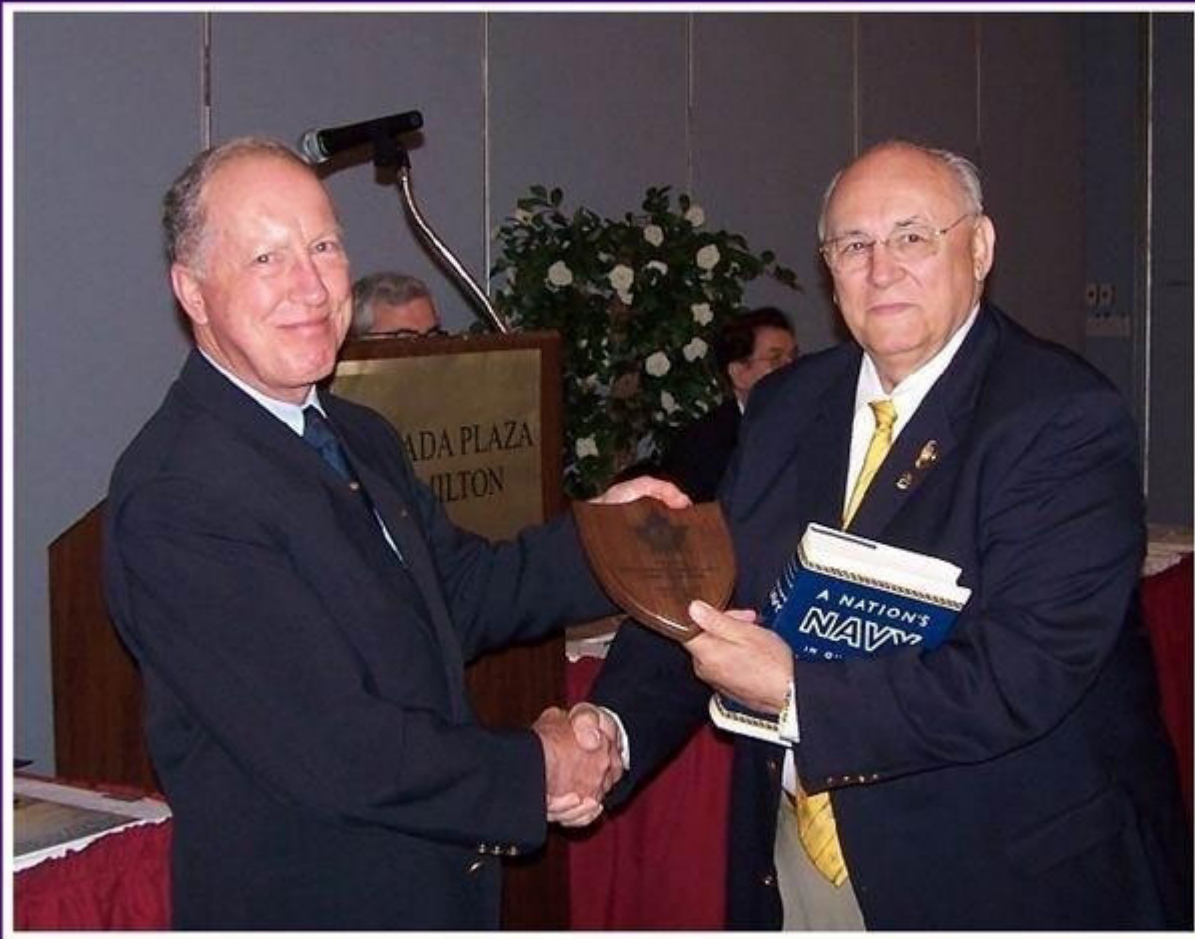
Commodore (Ret'd) Eric Lerhe

Recently the Sea Horse Project, General Hillier, and, finally, the government’s International Policy Statement have called for Canada to have a joint, amphibious expeditionary capability. Many have welcomed this while some have not. Peter Haydon, for example, has argued this new vision will result in the navy becoming a “politically acceptable, marginally useful, tiny fleet”

that is dedicated to providing “sea lift for peacekeeping forces.” Further, he suggests that filling this requirement should be the lowest priority of after filling our traditional domestic, NATO-US support and naval task group roles.

(continued p. 25)

NOAC HOLDS AGM AND CONFERENCE IN HAMILTON



NOAC President Mike Cooper (left) presents book to USNRA Captain John Lindell

The Naval Officers Association of Canada held its 60th Annual General Meeting and Conference in Hamilton Ontario from the 9 to the 12 June, 2005. The Conference was headquartered in the Ramada Plaza Hotel with 85 persons in attendance for the daily activities and 135 persons registered for the Awards Dinner on Saturday, 11 June. The USN Naval Reserve Association National President, Captain John E. Lindell and 6 Association Members were in attendance for the entire Conference. The conference was presided over by the outgoing National President Mike Cooper. At the Awards Dinner Mike Cooper turned the Gavel over to the incoming National President, Ron Harrison, a Member of the Naval Officers Association of British Columbia.

At the AGM, the following donations from the Endowment Fund were approved:

HMCS Haida	\$ 2000.00
HMCS Saguenay	\$ 1000.00
HMCS Sackville	\$ 2000.00
NOAC Sea Cadet Maritime Affairs Scholarship	\$ 2000.00
Stadacona Wardroom Mural Refurbishment	\$ 1000.00
Canadian Naval Review	\$ 1000.00
Canadian Naval Maritime Trust (Sackville) Essay Competition.....	\$1000.00

An excellent Seminar was convened on Friday, 10 June in the beautiful Convention Centre “LIUNA Station”. The centre is the restored former Hamilton train station. The theme of the seminar was the Maritime History of the Hamilton Area. Papers were presented by the Canada Centre for Inland Waters, The Port Authority, the Royal Hamilton Yacht Club, the Canadian Coast Guard, and nationally recognized Historians of the Great Lakes.

The meet and Greet was held at the Canadian Warplane Heritage Museum. A Waterfront Night was held on Friday which included a visit to the new Canadian Marine Discovery Centre, a tour of HMCS Haida and a buffet supper in HMCS Star. Partners tours of the Hamilton area were held on the Friday and Saturday and featured a luncheon at the Royal Botanical Gardens. The traditional “Up Spirits” was held on Sunday morning in the Ramada Plaza Hotel and included a sumptuous buffet breakfast to fortify the attendees as they departed for their return to their various Branches across Canada.

The next Annual General Meeting will be held in Ottawa, in early June of 2006.

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(continued from p. 23)

The Joint Requirements Problem

This approach is in line with the traditional weak response of government, DND and all three services to the joint requirement. The effect of this approach is ever visible. A review of major ongoing Canadian Forces (CF) capital projects on the DND Website reveals only one project (CANMILSATCOM) that recognizes a joint interoperability requirement amongst the several score of projects listed. There is simply no sign of any effort to fund inter-service, joint connectivity.

I was part of the leadership that sustained this indifference to joint interoperability. The reasons for doing so were many and they seemed compelling at the time. First, there was no overarching joint vision that made it a government or departmental requirement. Second, there was no additional money for the increased connectivity ‘jointness’ demands. Services occasionally recognized a joint need but had to pay for it themselves, and the results were haphazard indeed. Thus the navy installed jam-resistant HAVEQUICK radios for fighter direction in the *Tribal*-class destroyers some 15 years before the CF-18 acquired them. Third, the acquisition process was already so convoluted and lengthy that no one in his right mind sought out additional hoops for a project to jump through. Finally, the operational posture of the three services did not call out for this joint connectivity.

Our medium power status within a Cold War alliance structure dominated by NATO and NORAD placed a solid premium on the Canadian Air Force and Navy being able to operate with their sister services of other allies and not each other. After leaving Europe, the army’s employment in successive peacekeeping operations left it with the impossible requirement of having to integrate with players that could range from high-tech US special forces to lower-tech Bangladeshi infantry. Thankfully, the tempo of traditional approaches to peacekeeping appeared to suggest the lowest common denominator was an acceptable standard. This narrow technical focus on single service needs carried over into how

our forces were employed and commanded. Canadian land, air and sea forces worked within ever-larger NATO or Canada-US (CANUS) land, air and sea task forces throughout the Cold War.

As our land and air forces were deployed permanently in Europe throughout the Cold War, they were disinclined to support large expenditures for sealift or airlift. Further, peacekeeping missions, unlike defence tasks, remain entirely optional allowing Canada to select the missions it would participate in and to dictate the timing as to when its forces might show up. The sedentary nature of our NATO commitments and the slow pace of peacekeeping also allowed both lower readiness levels and the use of the slower and less assured response rates of chartered air and sea lift.

Future Joint Requirements

This approach to joint expeditionary warfare was satisfactory for the Cold War, but I would argue it cannot and should not continue. First, with the exception of Canada, all of the G-8 states plus the Netherlands and Australia have embraced joint forces and wedded them to an amphibious capability for overseas missions. The results have been singularly successfully as the United Kingdom demonstrated in Sierra Leone, France in Cote D’Ivoire, Australia in East Timor, and the United States in Afghanistan. The ability of US, German, Italian and Australian forces to assist the recent tsunami victims in Asia rested almost entirely on their ability to deploy rapidly.

During this same period our own shortcomings became ever more obvious. Our government’s willingness to lead the world’s response to the 1996 Rwanda-Zaire refugee crisis in spite of a complete lack of lift and reconnaissance assets produced what soon became accurately known internationally as the “Bungle in the Jungle.” And there are other examples. The PPCLI battle group’s deployment to Afghanistan was delayed by over two months as we negotiated with others to provide the airlift to get them into

theatre. A chartered sea lift ship – the MV *Katie* – returning a large part of the army’s mechanized equipment from Bosnia hijacked that cargo until the ship’s owner was paid more for the voyage. An armed boarding sent from a Canadian naval destroyer team was needed to free the cargo after negotiations failed. Our DART deployment to tsunami relief noticeably lagged behind other states’ contributions as the government dithered and the airlift assets were slowly assembled. The only Canadian contribution to this worldwide shift towards joint expeditions can be found in the Canadian naval task group providing the sole escort to the US Peleliu and Bataan Amphibious Ready Groups in November 2001 as they made their initial assault on Jacobad and then Kandahar.

With this very rare exception, Canada just didn’t ‘get it’ when it came to recognizing the need for an overseas joint capability. Yet that seems to be changing rapidly. Last year the Joint Support Ship project was approved by government and this promised a significant improvement in sealift if not amphibious capability. This year saw both the Liberal and Conservative Parties calling for very large amphibious ships of landing platform dock (LPD) size. Further, General Hillier has taken a leaf from the Sea Horses Project, a joint vision tabled by a collection of retired officers, and is selling a robust amphibious capability that includes:

... a thousand or 1,500 soldiers.... Combine that with a naval task group of between two and five ships, including a ship that can take most of those soldiers.... Combine that with variety of air-force assets, including helicopters and surveillance aircraft like the Aurora, through to tactical airlift to move the stuff in and out, through to and including a package of CF 18s that can deliver precision guided munitions and train them together to come ashore in one place.¹

This April government endorsed that vision within its *International Policy Statement*.

The Sea Horses Project has explained the advantages amphibious forces enjoy in a faster response, higher interoperability, and the freedom from the dangers, delays and low tooth-to-tail ratios inherent in relying on foreign basing and negotiated landing rights. General Hillier has added that such an integrated Canadian force would also enjoy a higher and distinctly Canadian international profile. To these I would include additional benefits highlighted by post-9/11 events.

Our existing practice of deploying and then parceling out the various land, sea and air elements of the Canadian contribution to any operation is a solid advantage for the gaining coalition joint commander, but it provides few offsetting benefits to Canada. This practice reduces

Canada’s ability to call for a joint command responsibility that matches the size of our contribution, and a matching Canadian command responsibility can be critical. At the most basic level, Canada has learned that entrusting Canadian lives entirely to foreign commanders is fraught with problems. For example, during the Dieppe operation the UK joint commanders inexplicably denied air and sea fire support to the predominantly Canadian landing force, and foreign commanders led isolated Canadian troops with their own to defeat at Hong Kong.

Military operations in peace and war are complex at the best of times and simple command arrangements work best. Yet during *Operation Apollo* we saw how Canadian Forces elements in the Gulf Region operated under three and often five different US commanders. Being able to mount an all-Canadian joint effort allows us to demand the simpler, more Canadian-weighted command arrangements needed. It also gives our commander the option of asking for an entirely Canadian sector within the overall joint operational area. While I was not privy to UK-US decision making, it seems clear the UK’s joint contribution to *Operation Iraqi Freedom* involved the UK commanding its own land, air and sea operations in its own area initially centred on Basra. This approach allows for more effective command of one’s own troops while minimizing the need for the extensive interoperability required when one’s own forces are intermixed with others and the potential for fratricide is high.

In addition to being safer, such concentration of the Canadian effort is also likely to be more effective. Throughout the 1990s, the total Canadian contribution to the Former Republic of Yugoslavia was dispersed to an astonishing degree. Our land, sea and air forces were necessarily dispersed given the coastline and lack of airfields in country. However, for most of the period our army effort remained in the southwest, while our civil police operated in Sarajevo, our Canadian support to electoral reform worked somewhere else, and our CIDA projects were scattered about the region in no discernible pattern. This compared most poorly with the German effort that focused its military, development, civil police and civic reform effort in one single German-commanded sector. One has to assume this provided them immensely more coordination and leverage in dealing with uncooperative local elements. It also probably improved the force protection prospects of exposed aid and civic workers.

Canada was always ready to turn its separate land, air and sea forces over to NATO commanders and forgo high-level operational command because NATO procedures guaranteed that we would have a voice in defining the operation and that we would be consulted automatically when major changes were later required. Common NATO rules of engagement and shared procedures ensured all participating forces opened fire using the same criteria and treated prisoners and the civilian

population according to a widely held code. However, today there is an increasing preference for ‘coalitions of the willing’ over alliance-led missions. While coalitions are more flexible, they lack the daily high-level political consultation that occurs within the NATO system of permanently sitting ambassadors and senior military representatives.

Consensus within these coalitions of the willing is, at best, loose. During *Operation Enduring Freedom* no attempt was made to set force-wide or common rules of engagement (ROE) as NATO does, because the coalition structure was completely incapable of supporting the extended negotiations needed to establish consensus on this complex military-political issue. As a result, rules of engagement within the coalition varied dramatically from state to state with many forces arriving in theatre without the initial ROE that would allow them to protect their allies. Other states had very robust ROE, and by their actions they were capable of provoking a significant enemy response against the coalition. Needless to say one’s opponent, when striking, will not concern himself with differentiating between those coalition forces with light ROE and those more aggressively equipped.

Given the weakness of the consultative process, the low levels of interoperability and the questionable coherence found within coalitions of the willing, an amphibious capability provides insurance. This may lie in the ability of a joint Canadian task force to reinforce each of its elements with, say the navy providing naval gunfire support to the land forces under fire, or guaranteeing a safe and rapid extraction capability. We need not repeat Hong Kong or Dieppe.

These forms of coalition operations present daunting problems that might suggest that Canada should well steer clear of them. Yet this response is neither called for nor desirable. Our forces executed their missions in support of *Operation Enduring Freedom* with skill and gave our closest ally critical support in halting al Qaeda during the immediate post-9/11 period. Given current divisions within the United Nations Security Council and Africa’s limited military response potential, a lasting solution to the situation in Darfur will probably lie in the actions of a similar Western-led coalition of the willing. What this movement to a less structured, less multilateral operational environment suggests is that Canada must adapt, and right now the joint amphibious approach provides the most effective contribution and the contribution best able to ensure the safety of the Canadians who participate.

There are problems with this approach and the most obvious of these centres on affordability. The vision General Hillier provided in the quotation given earlier retains most of the current CF inventory and then adds substantially to it. Yet the most recent budget, in addition to being back-end loaded, has not provided the funding needed to both replace current equipment and acquire an amphibious capability.

The Naval Response

As this debate unfolds the navy, more than any other service, is well positioned for joint expeditionary operations. No other service can match its readiness to deploy, its high level of interoperability, its lean, integral and efficient logistics train, and its proven ability to maintain extremely complex weapons systems tens of thousands of miles from home support. The navy does not need to redo its doctrine or its internal processes to adapt to the Hillier vision.

The navy’s problem is not one of adaptation; it is one of numbers. Unless the *Tribal*-class destroyers are replaced we will fall to twelve major surface combatants – six for each coast. As we seek replacement vessels we can credibly argue that two of the six on each coast will be in a maintenance and training cycle at any one time. Another single, high-speed, deep-sea warship need not be at sea but it must be immediately available to respond to detections raised by our surveillance systems, coastal defence vessels and submarines conducting the domestic security task. The remaining three ships per coast simply cannot support the remaining multiple commitments. These include contributing to NATO’s standing naval reaction force, joining deployed US Navy battle groups, providing the elements of a naval contingency task group, (another NATO commitment), and supplying the escort and lift for General Hillier’s amphibious force.

Given our declining influence worldwide and our recent decision to not participate in the US missile defence program, it would not seem desirable to suddenly eliminate any of these central elements of our NATO commitment and our CANUS defence agreements. Alternatively, a policy that relies on sending a Canadian joint expeditionary force without escort signals that we do not expect that force to go to where even modest opposition is forecast. The force is, thus, not a serious one.

This suggests that the navy must argue its case for ship numbers based on its unique ability to satisfy every defence priority whether it is domestic security, CANUS regional defence, NATO commitments, or joint expeditionary operations. In fact, the navy must argue that its own projects and all other defence projects be evaluated on their ability to fill multiple priorities and, most critically, on their ability to contribute to and operate in a joint environment.

Footnote

1. Paul Koring, “Combat Role of Troops is Vital, Hillier Says,” *Globe and Mail*, 14 February 2005, p. A7.

WHAT PRICE AMPHIBIOSITY? (Amphibious Force Level Requirements)

Colonel (Ret'd) Gary Rice

The first question Prime Minister Paul Martin and Minister of National Defence (MND), Bill Graham, must answer before Chief of Defence Staff (CDS), Rick Hillier, gets government's green light to go ahead and purchase any "big honking ship" is: what is the Canadian Forces' war-fighting expeditionary lift requirement? Is it to be the 7-800-soldiers of a light infantry battalion (LIBn)? Is it to be a 3-5,000-strong light infantry force or a medium mechanized brigade (LIB) (MB)? Or will it be the Standing Contingency Task Force (SCTF) whose details have yet to be made known to Canadian taxpayers? Our future expeditionary lift requirements should support Canada's defence policy and military strategy. Whatever vessel is chosen must satisfy anticipated future combat demands and meet contingency commitments.

The required lift may be calculated using a formula that involves an evaluation of the necessary transport capacity, or 'fingerprints of lift', in five categories: 1) number of troops, 2) vehicle square footage, 3) cargo cubic footage, 4) vertical take off and landing aircraft and/or medium/heavy helicopter deck space, and 5) air-cushion landing craft (LCAC) well-deck space. For reasons of economy, rather than using the LCAC criterion, I would suggest that the required well-deck space should instead be calculated on the basis of a combination of: Landing Craft Mechanised Type 8 (LCM-8), Landing Craft Mechanised Type-6 (LCM-6), and Landing Vehicle Tracked (LVT).

Any acquisition of an amphibious warship capability affords the opportunity for the CF to redress its inability to provide close air support to a deployed land force. By 2017 our conventional-take-off-and-landing (CTOL) fighter aircraft, the CF-18, will require replacement.¹ The most likely substitute aircraft appears to be the F-35 Joint Strike Fighter (JSF). Canada should also consider acquiring the Short Take-Off and Vertical Landing (STOVL) version of the JSF for employment in a CAS role. These STOVL aircraft would be available for deployment aboard whatever amphibious warfare vessel Canada may decide on.

There is no government funding earmarked to develop a CF amphibious lift capability. In view of the very large sums of federal cash that would be required the MND and CDS must first address the lift requirement question. Only then may the CF's future capital acquisition programme to develop an amphibious war fighting capability be formulated.

Canada's amphibious lift requirement would most likely be based on a pre determined number of LIBn, LIB, MB, SCTF, or some other establishment whose manpower, major equipments, cargo cube, operating concept and tactical doctrine has yet to be made known. Today, the Navy's lift capability for any of these notional organizations is zero - unless one concludes that its future Joint Support Ship's planned troop capacity of 210 represents a credible Canadian Expeditionary Force. Disregarding this prospect, the MND and CDS will be obliged to proceed with some form of shipbuilding initiative before the end of this decade.

In their haste to get something in the water sooner rather than later, our top military planners and government officials should resist any temptation they may have to 'situate the appreciation' by deciding in advance upon a specific vessel before they have done the homework to identify the lift required. It is vital that the required ship(s) capabilities (fingerprints prints of lift) first be established. Only then, might the available 'off-the-shelf' foreign ship designs - essentially for reasons of economy and the current moribund state of Canada's once viable shipbuilding industry - be examined to determine which of them, if any, might satisfy Canada's needs. There are many possibilities to consider. These include: Great Britain's "*Albion*" Class ship; Italy's "*San Giorgio*;" the Netherlands' "*Rotterdam*;" the United States "*LPD-17 San Antonio*;" France's "*Foudre*" and "*Mistral*," and Spain's "*Galicia*" Class.

Were our government leaders and military planners to determine that the CF's lift requirement is one LIB, my preference, based on the grounds of fostering improved Canada - United States relations, interoperability with the US Navy and its published 'fingerprints of lift', would be the modern LPD-17 San Antonio Class, but substituting "Mike" boats for LCACs. Three of these very capable warships would be required. But, I have yet to see anything published by any DND or NDHQ authorities that would support this opinion, or indicate that three LPD-17's lift capability would in fact satisfy the CF's amphibious lift requirement. The recent decision by the United States to build only nine of its originally planned twelve ships leaves the door wide open for a possible innovative Canadian initiative to undertake to purchase the three unnamed ships.² Were this to take place, it would appear that the earliest the first keel of a Canadian LPD could be laid would probably be 2009, with commissioning in 2012, and with all three ships coming into service by 2015.

Attaining the amphibious lift required for a LIBn, MB, LIB, or SCTF will require significant amphibious ship capacity. The acquisition of just one amphibious ship would allow Canada to confidently declare that the CF possess an amphibious warfare capability.

The question of: how many ships are required must be pursued. The respected Naval Historian, Michael Whitby discussed this question in his book: *Fouled Deck: The Pursuit of the Second Aircraft Carrier in the Royal Canadian Navy, 1945-64.* He observed that: “Running a navy with just one of any type of platform is a precarious proposition. There is simply no redundancy. This is especially true with aircraft carriers as all aviation assets rely upon that platform to operate at sea. If it is sunk or damaged, or requires a long refit or even routine maintenance, flying squadrons are left without a base, and the flexibility and mobility inherent in naval aviation disappear until the carrier is replaced or returns to sea. Even simply maintaining proficiency requires the carrier since flying from an air base is significantly different than flying from the restricted, pitching deck of a carrier. Naval planners generally calculate on an assumption that ships can be operational about a third of the time, thus three becomes the magic number in generating force requirements.”

I would suggest the same ‘rule of threes’ also applies to future CF amphibious ships. Indeed, it might also be applicable for some of our other ship classes as well, including the JSS. One has only to recall Canada’s deep embarrassment when one of its two remaining fleet supply ships (AOR) had to remain in port rather than proceed as originally intended with the task force despatched from Halifax to help bring relief to the victims of Hurricane Katrina.

I would also propose that the CF’s new *Expeditionary Command* include as one of its subordinate formations, a *Naval Task Force* consisting of two *Standing Expeditionary Groups (SEG)*. A typical SEG would be able to put to sea on short notice one Future Canadian Landing Platform Dock (CLPD (F) with an embarked LIBn size SCTF, or other similar size unit, one destroyer, two or more frigates and one submarine drawn from our existing fleet of surface and sub-surface combatants, and one new fleet replenishment ship (AOE/JSS). Canada’s Geography dictates that one of the SEG should be home-ported on Canada’s Atlantic Coast. The second SEG should be home ported on the Pacific Coast.

Endnotes

¹.The CF-18 inventory is 118, of which 80 are being upgraded. This will extend their life expectancy to at least 2017. This information was obtained from the Department of National Defence website: “*Air Force Wings Across Canada.*”

http://www.airforce.forces.gc.ca/organization3_e.asp
2004-12-10.

².William Mathews, Gopal Ratnam, Megan Scully. *Bulk of DOD Budget Cuts Don’t Hit Until 2007 and Beyond.* DefenseNews.com, January 10, 2005.

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