CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES

Advanced Military Studies Course 3

Coalitions Redefined?

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ABSTRACT

"Niche Warfare Capability" – the idea of nations focusing precious fiscal resources on a far more narrow, perhaps even a single, warfighting contribution may become a solution to many countries' defence spending woes while enhancing coalition effectiveness and increasing esprit de corps. Instead of joining a coalition with the traditional broad range of fiscally inspired military mediocrity, each nation would contribute a single robust, state-of-the-art, capability. Why? Because, recognizing their impotence in face of the astronomical costs of modernising whole militaries and understanding that they will never be fighting outside a coalition/alliance, they have bravely abandoned their traditional military paradigms. This "niche warfare capability" would be predicated on a nation continuing to retain enough traditional air, maritime and land forces to meet national security defence needs. The potential for nations to focus remaining monies, along joint-service lines, to generate niche capabilities for war and operations other than war, is examined against a backdrop of operational level challenges for future coalitions.

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COALITIONS -*REDEFINED*?

By

Lieutenant Colonel Michael McLean

If I must make war, I prefer it to be against a coalition.

- Napoleon

Since I have seen Alliances at work, I have lost something of my admiration for Napoleon.

- General Sarrail

Introduction

As the new millennium dawns on an evolving, evermore multi-polar geopolitic, militaries[i] throughout the globe are attempting to redefine themselves to better serve their national political objectives. These potentially transforming deliberations are never easy and today they are confounded by Byzantine inertia introduced in the form of exotic and expensive technologies, anachronistic paradigms and asymmetric threats. This paper will show that one trend however, will profoundly influence organisational outcomes - the exponentially-rising costs of military modernisation (not to be confused with a Revolution in Military Affairs). It will be argued that these new fiscally inspired force structures will be characterised by a move away from broad military capabilities to ones advocating specialised "niche" competencies. Moreover, in that coalitions are ostensibly a sum of their parts, it follows that their character too will be redefined by this new

[i] The inferred focus of this paper in on the militaries of democratic Nation-States however, many of the arguments hold true for all nations.

amalgam of "niche warfighters." The paper takes an irresistible detour to sample some potential force development implications using Canada as an emblematic harbinger for this global trend. The paper concludes by suggesting that cost driven transformations are inevitable for most militaries and that there is a narrow window of opportunity for leadership to influence niche selection.

Coalitions Defined

Coalitions are defined as: "an *ad hoc* arrangement between two or more states for common action."[1] They have been part of warfare since the origins of conflict and have been considered both a source of weakness and of strength for operational commanders. From Trojan times, through Napoleonic Wars, coalitions have come together to face a threats that individual contributors could not face alone. Fear became the glue that bound coalitions together and sovereignty was exchanged for coalesced security: "...these pre-World War I coalitions were curiously contradictory. Each partner felt reassured by the fact that it would not have to battle against two or more foes alone; but it also felt the disadvantages of no longer being fully sovereign."[2] The greater the fear, the more committed the coalition and the more sovereignty acquiesced.[3] Today, many standing coalitions have been formalised into alliances like NATO, NORAD and the WEU - whether *ad hoc* as seen in the Gulf War or based on a formal alliance as seen more recently in Kosovo, coalitions remain the model for modern warfare.[ii]

Today, for reasons already stated and given the fact that coalition operations have become keys to legitimising the use of force, most nations define their military strategies in the framework of coalitions or alliances. The British Strategic Defence Review and

[ii] For the purpose of this paper, discussion of coalitions will treat formal alliances and ad hoc coalitions together unless otherwise differentiated.

the new version of British Defence Doctrine have built coalitions into their assumptions. One of Canada's five declared strategic objectives for change is to "strengthen our military to military relationships with our principal allies...."[4] Coalitions and alliances are so ingrained into the Dutch ethos that the Dutch Defence White Paper 2000 infers a total coalition approach and only expresses this in its force structure which is virtually all coalition driven. Even the US, one of the few countries that could act unilaterally, holds a National Military Strategy that lists commitment to coalition warfare as one of eight "employment principles."[5]

Clearly, the enduring construct of coalitions will continue to define warfighting for the foreseeable future but not without problems. There is a plethora of material bemoaning the problems associated with incongruencies between partners and the challenges facing operational command. Thomas, Phillip and Kessmeire identify ten historical sources of friction; goals, logistics, capabilities, training, equipment, doctrine, intelligence, language, leadership and cultural differences.[6] Robert Ricsassi further suggests that getting doctrine and leadership right are key to unity.[7] Peter Hunt provides another view suggesting that the "coalition factor" is a function of capability (responsiveness, training, doctrine, equipment, language) and will (trust, perception of leaders) and the two are bridged with intelligence sharing and C2.

Typically, for all of these problems of interoperability, these authors offer remedies that advocate combined training and co-ordinated doctrine development and complimentary investment strategies. Unfortunately, while plausible in theory these programs are very difficult to put into practice. Militaries are mammoth organisations and the cost of coalition size training exercises is beyond the reach of all training budgets.

Doctrine is ever changing, nationally motivated and technologically (cost) constrained. Legacy investment strategies often produce juggernaut paradigms that are difficult and expensive to alter. Ironically however, it is this common thread of inertia - "cost" that will help redefine coalitions and perhaps alleviate some of their sources of angst.

Cost of Modernising Militaries

The notion that we may have entered a new 'Revolution in Military Affairs' (RMA) has captured many military imaginations and is shaping several nations' strategic planning, most notably that of the USA.[8] An RMA follows the notion that throughout history, the emergence of new technology combined with dramatic changes in doctrine and organisation fundamentally alters the character and conduct of military operations.[9] Current RMA rhetoric seems to be predicated upon the fact that new technologies are revolutionising information operations, C2, stealth programs, unmanned combat vehicles and precision engagement.[10] The cost to anti-up according to one expert is a whopping 42.8 % increase to defence budgets over the next 15 years.[11] Clearly, in times where most nations think in terms of keeping the lid on defence spending, the attractiveness of keeping pace with RMA initiatives is less than appealing for government finance officials. Ironically, the following discussion will show that modernising the status quo is not an option either and that an unavoidable organisationally based RMA will become what defines many future armed forces and, in turn, coalitions.

The marvels of the superconductor, the microchip, artificial intelligence, computer-aided design/manufacturing/engineering, composite materials, supercomputers, etc., have all combined forces to provide technology that staggers the imagination. These innovations have allowed mankind to conquer the land, sea, and air environments and

man is now well on his way to making himself at home in space. From a military viewpoint the advances have been equally staggering and today the US is investing hundreds of billions to militarise space.[12] Notwithstanding the colossal costs of militarising space, conventional technology does not come cheap and costs are rising dramatically. To illustrate this point, the CF-18 replacement will be used as a metaphor for the logarithmically rising costs of land, sea and maritime inventory modernisation (to provide land and maritime specific parallels is not pragmatic given the constraints of this paper and arguably, aircraft modernisation conveniently amplifies the point). In the mid-fifties, not including life cycle costs, the price expressed in 1997 US dollars to purchase an F-4, which was representative of the CF-101 class fighter, was 17 million.[13] The CF-18 appeared on the scene to replace the CF-101 in 1980 at a cost of 38 million.[14] Today, the US is now taking delivery of the F-22 which incorporates the latest technology has to offer. Despite the inevitable population of critics, the F-22 delivers an impressive weapon's package, supercruise, agility and stealth - unless the pilot chooses to reveal himself intentionally adversaries will never know what hit them. Based on extrapolating the cost data points of the F-4 and the CF-18, one would expect the F-22 to come in around 65 million a copy. In actual fact, the F-22, again without life cycle costs, will fetch an incredible 180 million US ($270 million Canadian) per copy - a dramatically, non-linear rise in price.[15] A similar case could be made using the Canadian maritime helicopter replacement project where, the Canadian Government has just earmarked $2.9 billion CDN (this does include life cycle costs) for 28[16] Replacing the Canadian DDH or the Leopard Tank with today's technology would no doubt adhere to a similar calculus when graphed against earlier generation cousins. The point -

advancements in expensive technologies are driving replacement costs through the roof and a large portion of this paper will be dedicated to illustrating some of the hard choices ahead - choices concerning what military capability, that was once taken for granted, must be given up. Today, in Canada for example, the Canadian Air Force is agonising over the sobering debate surrounding a fighterless future. Canada is not alone in this - table one provides a 1997 international sampling of budgets and the associated inventories of equipment that must eventually be modernised.

Country	Budgets ($B)	Active Forces	Division Equivalent	Combat Aircraft	Combat Ships
Belgium	3.3	43,000	1	132	3
Denmark	3.2	33,000	2	64	9
France	37.2	370,000	6	505	60
Germany	33.6	350,000	7	489	31
Greece	3.5	162,000	12	342	22
Italy	20.0	325,000	4	286	40
Netherlands	8.0	57,000	1 2/3	171	16
Norway	3.7	34,000	1	80	40
Portugal	1.7	55,000	1 1/3	95	13
Spain	6.9	197,000	3 1/3	207	26
Turkey	6.8	629,000	15	95	36
UK	33.2	210,000	3	538	53
Total Europe	161.1	2,465,000	57 1/3	3,404	349
United States	250.0	1,145,000	29	2,266	247

Table 1

European/American Forces and FY 1997 Budgets[17]P

Canada	**6.8**	**60,000**	**1**	**141**	**33**

Canadian Forces FY 1999[18]

Table 1a.

The anti-argument is of course that increases in military spending will allow countries to replace and incrementally improve their ageing fleets. Clearly, the rising

cost of technology would not pose a problem providing defence budgets were augmented commensurately. Unfortunately, this is not the case, as most budgets are remaining steady or declining[iii]. Throughout the world defence budgets are competing with familiar societal concerns i.e., the rising costs of health care (which is also often technology driven), transportation infrastructure, costs of education, programs for the poor or unemployed and care of the growing population of pensioners to name only a few. Moreover, within existing budgets militaries are expected to fund unprecedented peacekeeping and humanitarian deployments.

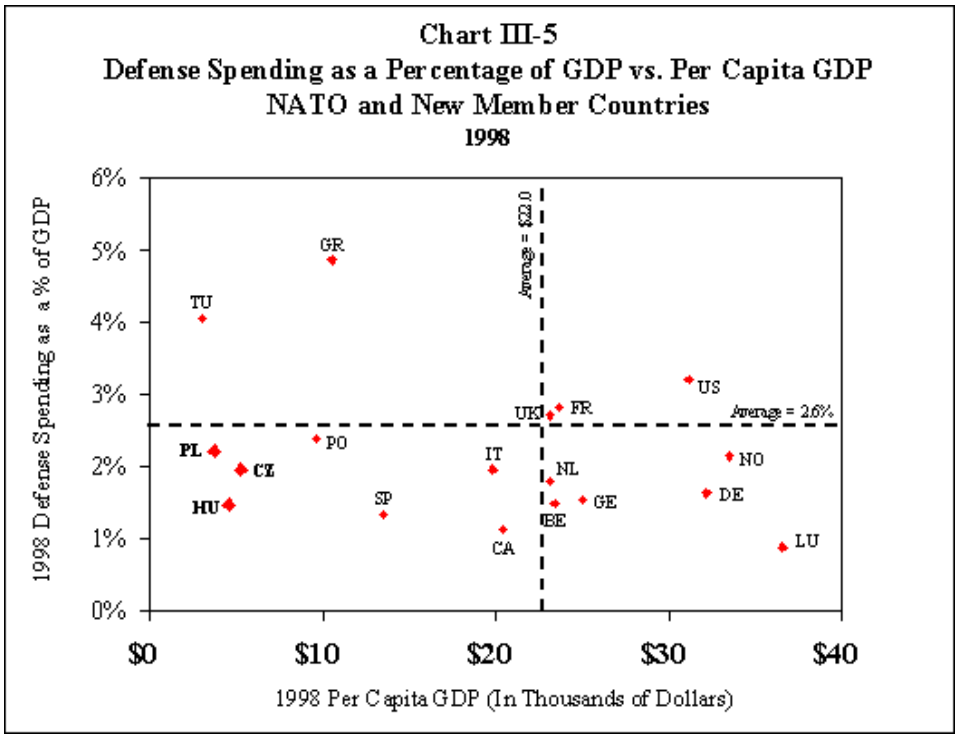


Table 2

[iii] Clearly many nations are embroiled in threatening imbroglios and their defence budgets will continue to be sustained as a function of the perceived threat to their security. An interesting departure from this calculus is the potential for a country with vast sources of national wealth to develop a disproportionately potent broad-based military capability.

Table two depicts a comparison of one of the most useful standards of measure when comparing defence budgets - their percentage of Gross Domestic Product (GDP). The average European defence budget has gradually declined over the past 10 years to 2.4% of GDP but there is only just recently a new trend toward stability as political demands for peacemaking and peacekeeping argue against further reductions.[19] The Australian defence budget of approx. 6.5 Billion represents 1.8 percent of GDP and Australia's military spending is at its lowest levels since 1939.[20] Canada's defence spending has been relatively steady in real terms since 1969[21] and is expected to remain around its present 1.2 % of GDP.[22]

That costs are rising and budgets are remaining fairly constant or even falling is not a new phenomenon and many would argue that it has almost always been so in times of relative global stability and that there will be 'workarounds' when needed. Loren Thompson argues however, that things have changed and suggests that the cost of modernising militaries today requires a minimum commitment of 3.5 percent of GDP[23]. Clearly this goal is not only antithetical to current trends, it is out of reach for most nations and following years of constant cutbacks and capital postponements the situation only worsens. Moreover, as inventories march toward obsolescence and costs of new technologies continue to rise astronomically several nations have begun to take serious steps toward the hard decisions needed for restructuring. Australia for example, has only half of the $65 Billion (US) required for new equipment over the next 15 years and will be making hard choices regarding projects now scheduled.[24] The Dutch Defence White Paper 2000 explains that budget constraints "result in difficult but unavoidable choices." And that measures will be taken to "include the disposal of two Standaard-class frigates,

three mine-hunters, three Orions, 136 Leopard-2 tanks....and eighteen F-16 fighter aircraft."[25]

Joseph T. Jockel's book *Hard Choices and Soft Power* provides excellent detail on Canada's precarious position in her modernisation efforts. The following paragraphs will be dedicated to a closer look at the state of the Canadian Armed Forces procurement needs and strategy with a view to Canada being a harbinger of things to come for other nations who have provided better insulation (in terms of applying a greater percentage of GDP) against the costs of modernisation - an insulation that will eventually succumb however, to the modernisation calculus.

In 1998 the Canadian Army provided this self-assessment: "the Army's 'core' combat capability remains constrained by obsolescent and obsolete 1960s and 1970s equipment that imposes limitations on the tasks which can be undertaken with acceptable risks and is becoming increasingly expensive to operate and maintain."[26] The 114 Leopard C-1 tanks were purchased in the 1970's and plans to replace them keep running into budget or political resistance. The tanks will receive a $139 million (Cdn). thermal imaging upgrade to improve night-fighting but the in the end, the thirty year-old tanks will still not have adequate firepower and are too vulnerable to enemy firepower such as hand-held anti-tank weapons.[27] All in all, the army believes it needs capital investment of around $4 billion (Cdn). to satisfy it's modernisation concerns.[iv]

The Canadian Navy is having problems as well. Its two operational support ships are verging on obsolescence, its four destroyers will need to be replaced in the next 10-15 years, its 30 Sea King helicopter force is beyond obsolescence and will cost 3 billion Cdn

to replace.[28] The maritime patrol aircraft fleet comprising 21 CP-140/A aircraft are "quickly obsolescing and are on the verge of being ineffective."[29]

If one accepts that the Army and the Navy are suffering, then the Air Force might be seen as if it were in intensive care. In the 1960's, The Canadian air force maintained 19 operational fighter squadrons in Europe and North America.[30] Since that time, due to the devastating effect of increasing technology costs and a 29 percent decrease in annual budget support, the air force is at its smallest size since 1948.[31] In order to accomplish budget reductions the Air Force cut back on personnel, training (including annual flying rate) and operations. It sold off the entire fleet of modernised CF-5s, shut down its venerable 40 CT-33 force, eliminated its Challenger based electronic warfare capability, and reduced its operational CF-18s by half (to extend life cycle and save O&M).[32] The C-130 fleet is also aging and a replacement strategy for some of the older variants is needed. Unfortunately, in a refuelling capacity, the C-130 Hercules cannot accompany CF-18s from Canada to overseas and the refuelling conversion for the A310 Airbus (which replaces the long range refuelling capable 707) was never funded.[33]

All in all, a very bleak landscape for the air force which has already made several difficult choices and will soon be required to tackle its most defining decision yet: whether to replace the F-18s the lives of which have just been extended from 2002 to 2010.[34] Given the price of fighter replacement programs (as seen above), it is conceivable that the 10 to 20 billion required will simply not be there and the air force will be forced to go forward without that capability.

[iv] It is important to not

Clearly, with the 10s of billions of dollars in modernisation needs on the horizon, the Canadian Forces are rapidly approaching a defining moment in their history. In February of 1999, the Minister of National Defence said this of the defence budget: "We simply cannot afford to absorb anymore cuts to the budget of the Department of National Defence and be able to continue to respond in the way that we are expected to...."[35] In 1998, in a report on DND, the Auditor General of Canada told Parliament that: "The Department cannot afford all the equipment forecast to fully modernise the Forces."[36] With respect to capital needs, Joseph Jockel says it best: "there is undoubtedly reason to be pessimistic about the future of the CF....a crisis in capital could be upon the CF very soon."[37]

The problem with these already bleak prognosises is that they do not consider modernisation beyond the next generation of inventory updates and therefore have never been able to discern the logarithmically climbing trend for future technology costs. Broad based modernisation requires huge commitments to providing capital funding and even if one doesn't accept the previously suggested 3.5 percent GDP to keep abreast of technology and would prefer to use say, 2.5 percent, many countries, if not most countries (witness table 2: Italy, NL, Norway, Germany, Denmark, Belgium etc.), would not be able to modernise. Therefore, given the trends in defence budgets to remain not only stable but well below viable thresholds despite quantum leaps in the price of technology, the situation no longer verges on crisis but nudges toward catastrophe.

Nations are increasingly finding themselves faced with difficult choices characterised by a move toward military transformations as a result of having carefully weighed the ramifications of three axiomatic options; to dramatically increase defence

spending, to continue paring the status quo toward ever diminishing combat potency equations or to redefine themselves focusing on one or several niche specialities. Given the competing interests of domestic priorities such as social programs, the relative state of global security (notwithstanding the obvious exceptions from higher threat regions such as those of Turkey and Greece, the Middle East, the Mahgreb etc.) and the benevolence of the existing alliances it is difficult to imagine any of the non-superpower democratic governments offering up the level of funds required to meet broad modernisation needs. In light of fixed budgets, increasing tempo for peace-support operations (read budgetary stress) and the exponentially rising cost of technology, continued iterative paring of the paradigm can only lead to an ever tightening tailspin from military mediocrity toward irrelevance. Sadly, because of the often collective unreliability of leadership precipitated by a lack of real 'jointery', this seems to be exactly the path that many nations have chosen and one can imagine the three respective services all marching, line abreast, toward the precipice of marginalisation knowing full well that they are about to fall yet, are too paralysed with legacy thinking and momentum to do anything else. In a bold attempt to develop an emerging and promising alternative the remainder of this essay will be dedicated to the possibilities of niche specialisation and the impact this may have on future coalitions.

Niche Specialisation

Does niche specialisation make sense? This segment of the discussion will demonstrate that not only is the concept garnering a great deal of attention world-wide, it is already underway in substantially tangible forms. Moreover, once one lets go of parochial motivated legacy paradigms, a portrait inspired by specialisation emerges

which offers a landscape boasting tremendous industrial, military and even political potential. For the purpose of this paper a niche military is defined as a military which is able to provide basic homeland defence, a robust, deployable force for humanitarian operations and a small but highly specialised, focused, lethal contribution for coalition warfare. The niche military would not be capable of full spectrum force projection.

Some of the most compelling support for niche specialisation comes in the keynote address by Major General Ivar Gjetnes who commands the Norwegian Air Force Material Command. Interestingly, General Gjetnes was addressing a group of NATO's leading personalities in the fields of industry, science and technology - a group heavily dependent on military contracts and who have benefited from the traditional approach to broad based coalition warfare. In his address, General Gjentes says: "If we are to maintain a comfortable level of common security at low cost, I am convinced that the optimal way to manage the cost problem lies in a gradual relinquishing of the traditional national sovereignty."[38] He focuses his keynote address on four procurement issues - at the top of his list is the specialisation of military tasks within the framework of combined, joint operations:

> "It seems the time has come to recognize that perhaps no nation within the alliance can assemble forces that are sufficiently balanced to be able to cope effectively with the majority of potential conflicts that will have to be dealt with in the future, even including their own national defence. Hence, one solution to the cost problem is to establish agreements which give participating countries the option to concentrate resources on the development of forces with special but limited capabilities. The intent should be that these forces at the same time provide a necessary contribution to the establishment of any required combined joint force. Through specialisation of tasks and forces, each nation may in this way concentrate its limited resources to meet only selected elements of what used to be a much larger national military obligation. Based on this option, it will only be necessary to expend funds to develop and procure weapon systems that are peculiar to the special tasks which have been assigned to the forces of participating countries."[39]

James Thomas, author of "*The Military Challenges of Transatlantic Coalitions"* agrees with General Gjentes when he says: "[Kosovo]...highlighted the need for the core Allies to adopt non-institutional approaches to improve capabilities...made clear that, if future coalitions are to be more effective and efficient, the transatlantic Allies will have to adopt some form of role specialisation."[40] Thomas goes on to say that specialisation in advanced technologies such as precision-guided munitions, unmanned surveillance systems, missile defences and information systems will meet the challenges of minimising casualties and collateral damage while improving coalition integration.[41] Thomas further suggests that role specialisation will strengthen, rather than weaken coalitions by alleviating across the board redundancy and he even offers a blueprint for co-ordinating coalition-wide specialisation.[42]

In Gompert, Kugler and Libicki's *Mind the Gap - Promoting a Transatlantic Revolution in Military Affairs*, a similar argument for specialisation is made suggesting that an Atlantic Coalition be formed acting as one, militarily and politically. It is further suggested that specialisation will lead toward reduced manpower requirements, increased firepower, and with the right investments, operational synergy with American forces.[43] Further support comes form Professor Lawrence Freedman who argues that for countries with limited resources like Britain, forces should not be fashioned for an ideal type of war but should be geared to the sort of combined operations in which it is likely to get involved.[44]

Not only is there a good deal of rhetoric supporting niche specialisation. There are many active collaborative efforts that express the notion tangibly. In general terms, all countries have specialised to some extent. Decisions not to buy aircraft carriers,

airborne early warning, mine-hunting equipment, attack helicopters or to invest in the militarisation of space are just some examples where countries are subconsciously specialising and to an extent surrendering some of their sovereignty to allies. The underlying assumption is that they are going to develop the best basic broad combat capability they can afford and will get the extra support when they really need it from a coalition or an alliance. An agreement like NORAD where Canada relies on the US for many aspects of its aerospace defence in return for key capabilities and strategic geography is one example of specialisation. More deliberate, focused evidence comes from Europe where there is a Franco-German agreement on military airlift which pools all TRANSALL aircraft.[45] Another example comes in the establishment of the Europcorps - a rapid reaction force that is capable of large-scale deployment outside of the Union's borders. In addition to Eurocorps, there is the UK-NL Amphibious force, the Multinational Divisional Central, the EUROMARFOR, the EUROFOR, the HQ 1st GE/NL Corps and the Spanish Italian Amphibious Force. These are all forces that come together, pool their expertise and resources to produce a synergistic force that would otherwise be too expensive and difficult to manage alone.[46] The Dutch, who have already invested heavily in amphibious niche capabilities, have just ordered a second Amphibious Transport Ship with command facilities that they plan to offer as a contribution to the NATO Combined Joint Task Force (CJTF). Moreover, the Dutch armed forces themselves are being modularised so that they can readily be plugged into groups led by NATO, the UN, the WEU or an ad hoc coalition.[47]

Clearly, there are good reasons to specialise and there are several militaries that have already begun to formalise the process by entering into interesting partnerships.

One cannot help but think however, that there is a tremendous irony in the fact that fiscal restraints - the very source of reluctance to subscribe to the challenges of the RMA provide the same impetus to look a second time at the possibilities of the RMA with a view to discovering a relevant national political /military niche. Presupposing that niche warfare becomes the way ahead for a large number of small or middle powers, a new RMA could be envisioned that is characterized by emerging specialised niche organisations.

To firmly cement this concept of niche militaries, and to satisfy an irresistible urge to experiment with one for Canada, a small force development digression is made here to look at a non-institutional approach to redefining the Canadian Forces. To that end, figure 3 depicts the traditional paradigm of the three service broad-base capability that defines the current wide ranging weapons array available to the CF.

Present Defence Spending Model

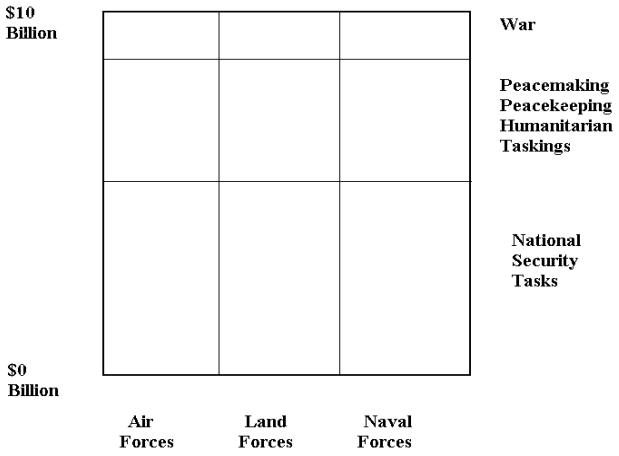


Fig. 3

On the next page, figure 4 shows one of the infinitely possible niche structures that would see the majority of the $10 billion spread over fewer competing resources and tasks. Here, the niche warfighters are to be imagined as smaller, faster, more lethal and outfitted with the latest state of the art equipment. Savings would be directed toward supplying first class equipment and training while future capital programs would be protected by safeguarding a sizeable portion to meet the demand for next generation modernisation.

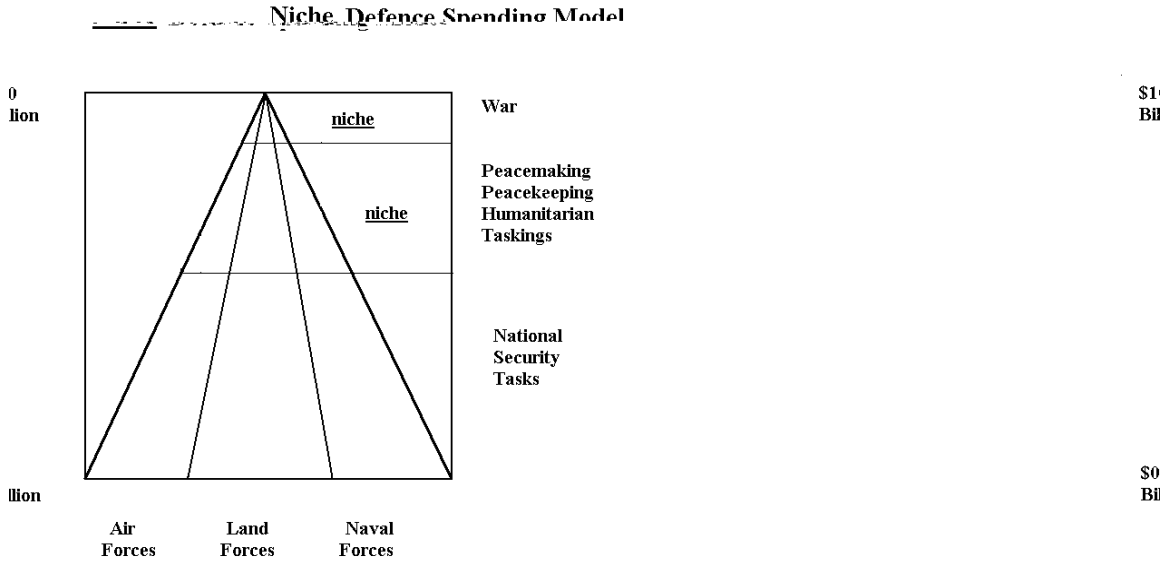


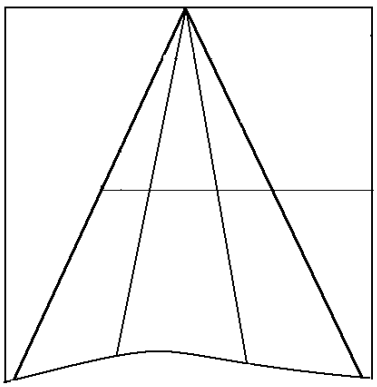
Fig. 4

In terms of selecting which niche to pick, there are many dynamics that might come into play. One factor might be to look at which strengths define the Canadian military industrial base. Canada may be very successful at producing robust contributions for its armed services in areas such as frigates, fighters and armoured vehicles. Some other sources of inspiration might come from the Canadian Department of Foreign Affairs which is also advocating focused mission oriented diplomatic behaviour which they dub: niche diplomacy. Andrew F. Cooper in his book *Niche Diplomacy* provides the following observation: "Canada cannot be everywhere and do everything. If it attempts to do so, it risks dissipating its resources and sliding into mediocrity. Canada must define its priorities, identify areas of comparative advantage, develop niche policies, and focus its resources so that Canada contributes distinctly

across the broad spectrum of common security[48]. Niche diplomacy involves a concentration on selected niches to provide for a more focused, rigorous Canadian policy. Why? Because the alternatives are seen as diffuse internationalism "and by extension, fiscally irresponsible"[49] Gareth Evans, the Australian foreign minister says: "niche diplomacy involves concentrating resources in specific areas best able to generate returns worth having, rather than trying to cover the field."[50] Sounds familiar. One of the diplomatic niches on which Canada has concentrated comes in the area of the land mines treaty, perhaps there is an opportunity to channel military investment to support programs consistent with long-term political niche themes.

The most influential motivations for selecting a niche would likely come from the tenets of the existing White Paper i.e., Protection of Canada, Canada-US Cooperation and Contributing to International Security. The Gulf War is one of the most robust military operations in which Canada participated since the Korean War and Canadians feel great pride in the role the Canadian Forces played. Yet, only 2 destroyers, 30 CF-18s and 1,700 troops constituted Canada's contribution[51]. Providing she meets her "protection of Canada" requirements, does Canada really need 60,000 troops, 141 combat aircraft and 33 war ships? Figure 5 offers an oversimplified niche alternative that assumes Canada meets her basic security needs while easily matching her contributions to the Gulf War scenario. In terms of force structures, the following provocative look is <u>not</u> designed to provide a serious entry for future force development but rather, to set the stage for the final section of the essay which examines a coalition of niche players.

Niche: High Intensity Conflict



War

Air: Airborne Laser
12 x F22, 5 x C17

Land: Special Forces
Air Def Reg's

Sea: 10 Frigate/EH10
6 x Submarine

Fig. 4

As illustrated, niche specialisation would involve a transformation from broad capabilities to focused high-value contributions. For example, the Canadian Air Force, might acquire a new emerging technology in the form of the Air Borne Laser (ABL) to establish its core air power niche. In 1981, the USAF fitted a gas-dynamic laser on a KC-35 tanker and vaporised five AIM-9 Sidewinder missiles and a low-flying drone simulating a cruise missile.[52] Highly classified until 1998, the Air Borne Laser is mounted on an air-refuelable Boeing 747, boasts an unclassified laser range of over 300 kilometres, and is able to destroy targets as large as theatre ballistic missiles.[53] The ABL uses a chemical laser which emits a 3-5 second[54] burst of beam travelling at 186,000 mph and is able to fire about 40 shots before the chemical laser needs to be recharged. At about $1,000 an enemy kill, the ABL is an exceptionally attractive alternative to existing

(million dollar) air to air missiles.[55] The US intends to field seven[56] ABLs by 2008 - with an 11 person crew, a multi-megawatt chemical oxygen-iodine laser and two onboard 360 degree IR sensors the ABL's missions will include high value airborne asset protection, defensive counter air, the destruction of theatre ballistic missiles (SCUDS for example), cruise missiles,[57] and ground based electronic equipment.[58] Including development costs, the entire ABL program is estimated to cost the US a "mere $6 billion"[59] and has, according to General Ronald R. Fogleman, former chief of staff of the Air Force: "the potential to revolutionise aerial warfare in the 21st century."[60] Shela E. Widnall compared the ABL to the discovery of gunpowder adding: "It isn't very often an innovation comes along that revolutionises our operational concepts, tactics and strategies."[61]

The ABL is presented here as an innovative alternative to modernising Canada's fighter force and to illustrate the kind of procurement strategy that might compliment the niche selection process. Three Airborne Lasers, several tanker aircraft and two squadrons of new (but older generation) F-16's might for example form a potent core niche for the airforce. The package, coupled with ground-based surveillance (or US Airborne Early Warning under existing NORAD constructs) would provide an excellent sovereignty capability, a superb peacemaking deterrent and an outstanding contribution to coalition warfighting.[v] Similarly, maritime forces might specialise in stealthy, robust frigate and/or submarine programs that would meet Canada's peacetime requirements while being a welcome addition to any maritime coalition task force.[vi] The army likewise

[v] This suggestion is only offered to illustrate the potential role of niche capabilities and is not intended to make a cogent argument for future force development.
[vi] Given that this is not the purpose of this paper, the force development discussion will be further abbreviated for the maritime and land possibilities.

would develop its own niche that would incorporate robust homeland defence and peace-keeping forces whilst providing a small but significant contribution to the high-intensity arena. If approached intelligently, future niche forces could meet most major domestic and foreign policy objectives, while supporting the Canadian industrial sector, harvesting the synergy of coalition and inter-service interoperability and, perhaps, even complimenting niche diplomatic initiatives. NDHQ's RMA Working Group put it this way: "A systematic DND/CF wide approach must be taken to interoperability in 2010 and beyond both within DND and with our allies, in combined operations. International agreements with Canada's allies must be used to pro-actively promote optimum future interoperability..."[62] They also suggest that: "New niche technologies that support the RMA-type concepts should be identified as soon as possible and the role of Canadian defence industries clearly defined."[63]

Coalitions Redefined

Clearly, the myriad of disparate initiatives toward niche development and thinking suggests a large-scale specialisation pattern is emerging. Given this movement toward niche capabilities, it follows that future coalitions will look and perform differently. It follows that coalitions of the future will likely see a core of one or two major players (the US, perhaps the UK, France or a WEU core etc.) with a large number of niche participants plugging-in their highly specialised modules to create a high-tech, high-power military force and the dynamics of this new coalition model will produce some interesting opportunities and challenges for the strategic and operational commanders. As previously argued, niche specialisation has the potential to synergistically strengthen a coalitions capabilities by reducing broad redundancies.

Instead of the classic geographic integration of coalition partners which were commanded along national lines, there would be a move toward more homogeneous joint and combined operations. Conversely, niche coalitions would be far more dependent on each other and some niches might be critically important to the operations. Should one nation decide to withdraw from the campaign, the effect could be devastating.

This paper began with a look at coalitions and the problems they introduce to warfighting at the operational level. Although easily an excellent new top for research in and of itself, it is impossible not to return to that theme to catch a glimpse of the potential impact niche specialisation might have on the operational conduct of coalition warfare. As previously stated, Marshall, Kaiser and Kessmerie identify ten historical points of friction for coalitions; goals, logistics, capabilities, training, equipment, doctrine, intelligence, language, leadership and cultural differences.[64] Using this construct, a cursory look is made at operational issues affecting future niche based coalitions.

Goals: Historically, coalitions have struggled with a lack of common goals - a problem exacerbated by the fact that they are subject to change over time. Smaller coalition partners often feel bullied and under appreciated by the larger powers, which tend to take control of the coalition. Niche dependent coalitions however may offer several advantages here. First, smaller coalitions would, because of their important contributions, be less likely to feel under appreciated - their role and kit-driven morale would likely be relatively high and because they would not be working in national chains per se, they would be less likely to become ensconced in operational level goal debates. Conversely, at the strategic level, a lack of commitment could pose a very serious

problem and jeopardise the entire campaign should their particular niche be critical to coalition success.

Logistics: A lack of common logistical and administrative doctrine has hampered past coalition operations. With a considerably smaller number of countries that could become eligible to provide the coalition core, it is suggested that future coalitions would not face the same level of confusion introduced in the past by several massive, redundant, non-interoperable logistical systems. Instead, niche players would fashion sustainment programs to parallel the major ally they are most likely to fight alongside.

Capabilities: Historically, leadership has not been sensitive to allied partners by ensuring each nation has the opportunity to contribute what it can accomplish to the mission. This is probably one of the strongest arguments for niche based coalitions because of the built-in importance of niche specialities. Naturally, if there is redundancy in certain niches, the leadership will need to ensure each nation has an opportunity to make meaningful contributions.

Training: Differing standards of training have routinely provided a source friction for interoperability. By definition, niche specialisation is designed to be modular and to be able to plug into coalition strategies. Because niches will be smaller in scale, peacetime training opportunities should not only be abundant but relatively inexpensive.

Equipment: Here the issue is interoperability and providing efforts are made to procure, upkeep and modernise so as to be able to compliment major allies, there are significant benefits in niche specialisation.

Doctrines: Heterogeneous national doctrines have provided a consistent source of friction and frustration for past coalitions. The challenge for niche players will be to

ensure they understand, accept and can apply the doctrine that they will be expected to execute. If the core coalitions employ unfamiliar or counterculture doctrine, niche players will have considerable difficulty expressing their full potential. On the other hand, if doctrines are close, niche players should become force enhancers immediately.

Intelligence: Intelligence sharing has traditionally been a difficult and sensitive issue for coalitions. Today, much of the intelligence relies on space based systems which are controlled by the larger powers. Niche players will most likely not have the luxury of organic intelligence and therefore will need to continually cultivate relationships in this sensitive area. This is seen as a serious impediment to niche specialisation and could well increase friction for partners that are excluded from the planning cycle due to a reluctance to engage in intelligence sharing.

Language: Language has posed considerable problems for coalitions engaged in all aspects of operational art. It is envisioned that future coalition forces will be integrated at a lower level of command but at a higher lever of complexity.[65] Language issues will still impose difficulty but will move to the lower tactical command levels - still problematic but more manageable than at the operational level.

Leadership: At all levels, a unified leadership is crucial to making coalitions work. For the same reasons stated in the discussion of 'goals', niche coalitions should be much easier to orchestrate at the operational level because they are not affected by the inertia of national command chains. On the other hand at the strategic level, frustration due to feelings of helplessness resulting from the generally smaller level of influence commensurate with reduced force contributions, may introduce an increased level of friction.

Cultural Differences: Problems of religion, gender, race, traditions and work ethic are factors that have created problems in the past. Given the closer integration of niche players in the future, this will likely create even more friction in the short term. However, with more cross-cultural exposure through coalition activities, co-operative dividends might be forthcoming in the longer term.

All in all, this canter through the coalition problem matrix suggests that niche warfare offers several advantages at the operational level especially in terms of interoperability. Provided that a well balanced coalition has been fielded, the smaller, more lethal and more agile niche players fit neatly into RMA projections while introducing easily managed/commanded military tools to the operational commander. There are however, several serious concerns at the strategic level that warrant further investigation. Suggestions for example that future niche coalitions would require much more attention in the development and selection stages prior to actual coalition building becomes an obvious and inevitable by-product of this research worthy of follow-on study.

Conclusion

Coalitions, despite their many problems, persist because of the overwhelming advantages they offer to the legitimacy and potency of combined military operations. Friction to their effectiveness has traditionally stemmed from incompatibilities in training, equipment, doctrine, language, leadership, objectives, culture etc. Historically, by separating and assigning individual participants to geographical areas some of these sources of friction have been minimised. Today however, one trend challenges the basic

structure of most militaries and, in turn, the structure and effectiveness of coalitions - the rising costs of modernising military forces.

Against a backdrop of fixed or reducing budgets the logarithmically rising costs of replacing fighters, ships and tanks is rapidly placing many countries on the horns of a dilemma. They must either dramatically increase their defence budgets to a whopping 3.5 percent of GDP or accept the notion of pursuing some form of niche specialisation. In that most nations cannot justify further cuts to the important aspects of running a country i.e., transportation infrastructure, health care, welfare, education etc., they are more and more being forced to abandon traditional military institutions in favour of a lethal, modern but very specialised military force and structure. It follows that the personality of coalitions, once determined by an amalgam of largely independent, broad capability players, will now be defined by the synergy of one or two larger 'core' partners supported by a myriad of very potent niche warfighters.

These new coalitions will also face new problems and challenges. Clearly, if one nation with an important niche withdraws support the operational impact could be devastating. Moreover, the question of "which niche" a country choose raises some interesting coalition building concerns (some niches may be more attractive than others - how might NATO, for example, ensure all crucial capabilities are developed?). Conversely, there are many advantages in niche warfighting and many of the traditional sources of friction such as training, interoperability, logistics, doctrine etc., are seen to be less problematic. In fact, the new niche based coalition is likely to offer far more operational synergy than that offered by past broad-based redundant and often mediocre juggernauts.

In the end, if one accepts that, for most middle powers, the question of niche warfighting is not one of 'if' but one of 'when and how,' those nations whose military and political leaders approach their transformations in a concerted, joint effort will do very well. Those who choose to decide by ignoring the truth and continuing their parochial efforts to protect legacy paradigms will most likely have their 'niches' selected for them - for all the wrong reasons by all the wrong people.

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[1] Marshall Thomas, Kaiser Phillip, Kessmeier John, ed, Problems and Solutions in Future Coalition Operations (SSI U.S. Army War College, 1997) 69.
[2]Neilson Kieth, Prete Roy, ed, Coalition Warfare- An Uneasy Accord (Waterloo: Wilfrid Laurier UP, 1983) 6
[3]Marshall, Kaiser, Kessmeir 1-2.
[4] Canadian Dept. of National Defence, Shaping the future of the Canadian Forces: A Strategy for 2020, June 1999, 6
[5] Hunt C. Peter, "Coalition Warfare - Considerations for the Air Component Commander," Thesis, Advanced AirPower Studies, Maxwell AFB, Alabama, 1998, 2
[6] Thomas. Phillip, Kessmeire, 2-9
[7] Robert W. Riscassi, "Principles For Coalition Warfare," Joint Forces Quarterly Summer 93, 58
[8] Andrew Richter, "The Revolution in Military Affairs and Its Impact on Canada: The Challenge and the Consequences," Institute of International Relations The University of British Columbia, Working Paper No. 28, March 1999, 17.
[9] Canadian Department of National Defence, Shaping the Future of the Canadian forces: a strategy for 2020, June 1999, 1
[10] Elinor C. Sloan, "Allied Approaches to the Revolution in Military Affairs - Britain, France, Germany, and Austrailia," Directorate of Strategic Analysis Policy Planning Division Policy Group, Project Report No. 99/03, Feb 1999, 1.
[11] John M. Treddenick, "Financing the RMA," Unpublished notes, 2000, 9.
[12] M.A. McLean, "The Militarisation of Space - How can the US Justify the Colossal Costs?", The Royal Air Force Air Power Review, Autumn 1998 12-32.
[13]
Pierrot Jane and Vines Jo Anne, A Look at Tomorrow's Tactical Air Forces, (Washington: Congressional Budget Office, 1997), p 37.
[14] Lane and Vines, p 37.
[15] Dale Bumpers, 'The Fighter Jet That Doesn't Need to Be Resurrected," The New York Times Sep 4, 1999.
[16] Mitch Gillett, $2.9 Billion Earmarked for 28 New Helicopters
[17] D.W. Reid "The Revolution in Military Affairs: - NATO's Need for a Niche Capability Strategy," Canadian Forces College, 2000, 12
[18] Canadian Forces Information Package, NDHQ Public Affai99 118.20001 153 0.4s1DC 110.9.7i9.75f3Tm(H)Tj10.02 0s 0 1 153

[21] Joseph T. Jockel, Hard Choices, Soft Power, The Canadian Institute of Strategic Studies 1999, 10.
[22] Defence - A National Institution, DND Pamphlet, April 1999, 27.
[23] Loren B Thompson, "Military Supremacy and How We Keep It," Policy Review, Oct/Nov 1999, 11.
[24] Thomas, 71.
[25] "Summary of the Defence White Paper 2000," Dutch Armed Forces, 10.
[26] Jockel, 53.
[27] Jockel, 53.
[28] Jockel, 72.
[29] Jockel, 77.
[30] Jockel, 91.
[31] Jockel, 91.
[32] Jockel, 94.
[33] Jockel, 100.
[34] Jockel, 99.
[35] Jockel 118.
[36] Jockel, 118
[37] Jockel, 119.
[38] Advisory Group for Aerospace Research and Development (AGARD), Strategic Management of the Cost Problem of Future Weapon Systems, AGARD Conference Proceedings 602, Sep 1998, K2-3.
[39] AGARD, K2-4.
[40] James P. Thomas, "The Military Challenges of Transatlantic Coalitions," Adelphi Paper 333. 59.
[41] Thomas, 65.
[42] Thomas, 73.
[43] David C Gompert, Richard L. Kugler, Martin C. Libicki, Mind the Gap - Promoting a Transatlantic Revolution in Military Affairs, (Washington: National Defense University Press, 1999) 44.
[44] Lawrence Freedman, 'Britain and the Revolution of Military Affairs," Defense Analysis, Vol 14 1998, 55.
[45] "Towards a European Crisis Reaction Team," Military Technology, April 2000, 44-53.
[46] "The Refinement of WEU's Operational Capability," Nato' Sixteen Nations & Partners for Peace; 1998 S9-S16.
[47] Official Summary of the Defence White Paper 2000, 6.
[48] Andrew F. Cooper, Niche Diplomacy - Middle Powers after the Cold War, (New York: St. Martin's Press Inc, 1997) 6.
[49] Andrew F. Cooper and Geoffrey Hayes, Worthwhile Initiatives? Canadian Mission Oriented Diplomacy, (Toronto: Irwin Publishing, 2000) 21.
[50] Andrew F. Cooper, Niche Diplomacy - Middle Powers after the Cold War, (New York: St. Martin's Press Inc, 1997) 5.
[51] "Tracking the Storm", Military Review, September 1991, 80.
[52] "Set Lasers on Stun", Airman, April 1997 http://www.aflmil/new/airman/or97/laser2.htm
[53] "Airborne Laser symposium Held at AFA". Legislative Update, June 10, 1997, 1.
[54] "Set Lasers," 1997
[55] "Set Lasers," 1997
[56] "Set Lasers," 1997
[57] "Airborne Laser (ABL) Simulator," http:s-1.taccssf.kirtland.af.mil/-webdoc/webnodes/abl.html.
[58] David A. Fulghum, "New Weapons Slowed By Secrecy Clampdown," Aviation Week and Space Technology, january 19, 1998, 54.
[59] "Above the Clouds," http://www.cybooks.com/up082497.htm
[60] http://www.seanet.com/Users/gtate/abl.htm
[61] "Set Lasers," 1997.
[62] National Defence Headquarters RMA Operational Working Group, Canadian Defence Beyond 2010 - The Way Ahead, 31 May 99, A-1/4
[63] National Defence Headquarters RMA Operational Working Group, Canadian Defence Beyond 2010 - The Way Ahead, 31 May 99, 32
[64] "Problems". 2.
[65] Thomas, 60.

Bibliograpghy

BOOKS

Cooper, Andrew F., and Hayes, Geoffrey. Worthwhile Initiatives? Canadian Mission-Oriented Diplomacy. Toronto: Irwin Publishing, 2000.

Cooper, Andrew F. Niche Dipomacy-Middle Powers After the Cold War. New York: St. Martin's Press INC., 1997.

Gompert, David C., Kugler, Richard L., and Libicki, Martin C. Mind the Gap. Washington: National Defense University Press, 1999.

Jockel, Joseph T. The Canadian Forces: Hard Choices, Soft Power. Toronto: CISS, 1999.

Matloff, Maurice., and Snell, Edwin M. Strategic Planning for Coalition Warfare. Washington: Department of the Army, 1953.

Marshall, Thomas J., Kaiser, Phillip., and Kessmeire, Jon. Problems and Solutions in Future Coalitions Operations. Pensylvania: SSI, 1997.

Neilson, Kieth., and Prete, Roy A. Coalition Warfare - An Uneasy Accord. Waterloo: Wilfrid Laurier University Press, 1983.

Thomas, James P. The Military Challenges of Transatlantic Coalitions. New York: Oxford University Press, 2000.

PERODICALS: journals, magazines, and newspapers

"Strategic Management of the Cost Problem of Future Weapon Systems." AGARD September 1998.

Boyey, Yves. "Joint Vision 2010 and the Allies: When Conventional Wisdom Meets Strategic Issues." RUSI Journal Apr (2000): 62-66.

Bumpers, Dale. "The Fighter Jet That Doesn't Need to be Resurrected." New York Times Sep 4 (1999): 13.

Freedman, Lawrence. "Britain and the Revolution in Military Affairs." Defense Analysis Vol 14, No. 1 (1998): 55-66.

Gillett, Mitch. "$2.9 Billion Earmarked for 28 New Helicopters." Maple Leaf 13 Sep Vol 3, No. 32 (2000): 2.

McLean, Mike. ""The Militarisation of Space - How can the US Justify the Colossal Costs?" The Royal Air Force Air Power Review Vol 1, No. 2, Autumn (1998): 12-33.

Messervy-Whiting, G. "The Refinement of WEU's Operational Capability." NATO's Sixteen Nations & Partners for Peace (1998): S9-S16.

O'Mera, Kelly Patricia. "The F-22 Fighter Puts US on Top." Insight on the News June 5 (2000): 18-19.

Riscassi, Robert W. "Principles for Coalition Warfare." Joint Forces Quarterly Summer (1993): 58-71.

Sutton, Oliver. "Finally: Green Light for Eurofighter." Interavia Dec (1997): 18-23.

Thompson, Loren B. "Military Supremacy and How We Keep It." Policy Review Oct/Nov (1999): 19-37.

"Towards a European Crisis Reaction Force." Military Technology April (2000): 44-53.

"Tracking the Storm." Military Review Sep (1991): 80-82.

Williams, Julie. "US Plans to Acquire Fighter Aircraft Outstrip Needs, Crowd Other Priorities." CATO Institute News Release Feb 26 (1999): 1.

PAMPHLETS AND GOVERNMENT DOCUMENTS

Department of National Defence. 1994 Defence White Paper. Ottawa: DND 1994.

Department of National Defence. The Future of the Canadian Armed Forces - Opinions from the Defence Community. MND Report to the Prime Minister, Ottawa: March 25, 1997.

Department of National Defence. A National Institution. Ottawa: 1999.

Department of National Defence. Shaping the Future of the Canadain Forces: A Strategy for 2020. Ottawa: June 1999.

Dresner, J.A., et al. An Analysis of Weapon System Growth. Santa Monica: RAND, 1993.

Friesen, Shaye K. In the Arena: The Army and the Future Security Envirionment. Kingston: DND Directorate of Land Strategic Concepts Research Note 9901.

Hunt, Peter C. Coalition Warfare - Considerations for the Commander. Alabama: Air University Press, 1998.

Jarvaise, J.M., et al. The Defense System Cost Performance Database. Santa Monica: RAND, 1996.

Leggat John, and Moen, John. Challenges and Opportunities Posed by Emerging Technology. Ottawa: DND, DMC Discussion Paper, 1999.

Matsumura, John et al. The Army After Next - Exploring New Concepts and Technologies for the Light Battle Force. Santa Monica: RAND, 1999.

Netherlands Department of Defense. Summary of the Defence Paper 2000.

Pelletiere, Stephan, C. Managing Strains in the Coalition. Pennsylvania: SSI, Nov 15, 1996.

RMA Operational Working Group. Canadian Defence Beyond 2010 - The Way Ahead. Ottawa: DND, 31 May 1999.

Roland, Alex. The Technological Fix: Weapons and the Cost of War. Pennsylvania: SSI, April 1995.

Staudenmaier, William O. A Strategic Analysis of the Gulf War. Pennsylvania: SSI, 25 Jan 1982.

Sloan, Elinor C. Allied Approaches to the Revolution in Military Affairs - Britain, France , Germany and Australia. Ottawa: DND Directorate of Strategic analysis Policy Planning Div Project 99/03.

United Kingdom Directorate of the Air Staff. British Air Power Doctrine. London: MOD 1999.

UNPUBLISHED DISSERTATIONS AND THESES

Hill, Roger. "Framework for a New Canadian Defence Policy." Canadian Institute for International Peace and Security, Working Paper 35, 1991.

Jaggi, U. "Command and Control in Coalition Operations - Is this what the Doctrine Ordered?" CFC, EX New Horizons, May 1997.

Laing, Kevin D.W. "At the Rubicon: Coherent Canadian Force Planning in an Incoherent Post-Cold War World." CFC, NSSC 2, 2000.

Read, D.W. “The Revolution in Military Affairs: NATO’s Need for a Niche Capability Strategy.” CFC, NSSC 2, 2000.

Richter, Andrew. “The Revolution in Military Affairs and Its Impact on Canada: The Challenge and the Consequences.” Institute of International Relations, The University of British Columbia, Working Paper No. 28, March 1999.