

## Archived Content

Information identified as archived on the Web is for reference, research or record-keeping purposes. It has not been altered or updated after the date of archiving. Web pages that are archived on the Web are not subject to the Government of Canada Web Standards.

As per the [Communications Policy of the Government of Canada](#), you can request alternate formats on the "[Contact Us](#)" page.

## Information archivée dans le Web

Information archivée dans le Web à des fins de consultation, de recherche ou de tenue de documents. Cette dernière n'a aucunement été modifiée ni mise à jour depuis sa date de mise en archive. Les pages archivées dans le Web ne sont pas assujetties aux normes qui s'appliquent aux sites Web du gouvernement du Canada.

Conformément à la [Politique de communication du gouvernement du Canada](#), vous pouvez demander de recevoir cette information dans tout autre format de rechange à la page « [Contactez-nous](#) ».

CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES

CSC 27 / CCEM 27

EXERCISE/EXERCICE NEW HORIZONS

**Restructuring Canada's Air Force: Adopting a Niche Capability in Air Transport**

By Maj Frank Costello

*This paper was written by a student attending the Canadian Forces College in fulfilment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the Government of Canada and the Canadian Department of National Defence. This paper may not be released, quoted or copied except with the express permission of the Canadian Department of National Defence.*

*La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale.*

## ABSTRACT

Funding shortfalls for the Canadian Forces over the past decades have resulted in a serious decline in the capabilities of the air force, to such an extent that it is becoming irrelevant to the nation and its alliance partners. As it is unlikely that these fiscal restraints will be eased to any significant degree in the foreseeable future, the commitment to maintaining a multi-purpose, multi-role air force should be abandoned in favour of adopting a niche specialization in air transport. This would entail eliminating the CF-18 fighter force to permit the reallocation of funding and concentration of effort necessary to expand the current limited air transport capability into a world-class service. Restructuring the air force to specialize in air transport would, through greater applicability to domestic and global commitments, better serve the needs of Canada.

Canada's air forces emerged from the Second World War as the fourth largest in the Alliance, and with a sense of pride earned from having fought admirably in both the European and Pacific theatres of operation. Canada's contributions were considerable and included fighter squadrons, transport squadrons, and the British Commonwealth Air Training Plan. Following the war, the air force remained a formidable entity for quite some time; for instance, ten years later Canada still possessed one thousand fighters distributed amongst 31 squadrons.<sup>1</sup> The desire to retain a modern air force encompassing a wide variety of roles and capabilities appeared appropriate for a young nation with seemingly unlimited future economic and political potential. Accordingly, until the end of the Cold War, Canada strove to maintain versatile and combat-ready air forces largely in order to contribute to the North Atlantic Treaty Organization's (NATO) ability to deter, and if need be, defeat invading Warsaw Pact forces.

The fall of the Soviet Union in 1991 resulted in a fundamental and dramatic shift in the world geo-political situation that had, since World Wa

budgetary cuts, which proved to be both extensive and protracted. The air force, instead of exploiting this opportunity to undertake a process of institutional rationalization, desperately sought to maintain all categories of capability, even at the expense of operational effectiveness. The resulting force is now seriously deficient in its ability to accomplish mandated tasks. In order to remain relevant to Canada and the Canadian people, the CF needs to reject the unrealistic expectation of maintaining a multi-purpose, multi-role air force and pursue the development of a niche capability, one which will also be more applicable to the needs of alliance partners. The future for the Canadian air force lies in air transport specialization, with an accompanying divestiture of all fighter force capability.

While significant cuts to defence spending occurred during the 1970s and most of the 1980s, the most severe were initiated in 1988 in reaction to high federal budgetary deficits and debt loads. Since that time, the CF have experienced a devastating 23 percent reduction in funding, with budgets reduced from \$12 billion in 1993-94 to \$9.4 billion in 1998-99.<sup>3</sup> This period also saw the removal of a permanent presence of the CF in Europe, with the closure of bases in Lahr and Baden, and a downsizing in personnel from 87,000 in 1992 to approximately 59,000 at present.<sup>4</sup> The fiscal restraints imposed on DND impacted the air force greatly. Since the release of the White Paper in 1994, the budget of the air force has been cut by over 29 percent (or approximately \$275 million per year)<sup>5</sup>, making it less than that of the army.<sup>6</sup> This is a dramatic change of fortune for a service that had grown accustomed to receiving a greater than 40 percent share of defence spending during much of the Cold War period and whose manpower

---

<sup>3</sup> Joseph T. Jockel, *The Canadian Forces: Hard Choices, Soft Power*, (Toronto: The Canadian Institute of Strategic Studies, 1999), p 13.

<sup>4</sup> William B. Scott, "Bolder Budgets Restore Canada's Air Force," in *Aviation Week & Space Technology*, [<http://proquest.umi.com/pqdweb?TS=98167...1&Dtp=1&Did=000000056366931&Mtd=1&Fmt=3>], 26 Jun 2000.

<sup>5</sup> LGen David Kinsman, "The Future of the Canadian Air Force," in *Air Power at the Turn of the Millennium*, ed by David Rudd, Jim Hanson, and Andre Beauregard, (Toronto: Canadian Institute of Strategic Studies, 1999), p 6.

<sup>6</sup> Jockel, *The Canadian Forces...*, p 91.

had grown larger than that of the land forces.<sup>7</sup> The air force responded by reducing its inventory from over 700 aircraft of approximately 20 different types to a projected 335 aircraft of 11 types by 2002,<sup>8</sup> and cutting air force personnel from 24,000 in 1992, to a current level of 13,500.<sup>9</sup>

The problems now facing the air force span virtually all fleets and capability groupings. Maritime patrol aircraft, purchased in 1980 and finally undergoing an extensive modernization program, will still have their multi-role capability seriously compromised by the lack of a “multi-spectral sensor package.”<sup>10</sup> Even more disconcerting is the potential for further delays in the Sea King replacement project as a result of legal investigations into possible political meddling in the procurement process.<sup>11</sup> The CF-18 fighter fleet is also being modernized, but only 80 of the 122 aircraft will be upgraded,<sup>12</sup> the rest likely being sold to help underwrite the \$1.2 billion project.<sup>13</sup> In tactical aviation, fleet rationalization led to the replacement of three airframe types by the lone Griffon fleet, with an accompanying loss of capability, most notably in the areas of medium lift and reconnaissance. With respect to support aircraft, Canada has the dubious distinction of operating the highest flight time C-130 aircraft in the world, with most of the fleet less than a decade away from reaching the end of their estimated life expectancy, and no decision forthcoming concerning refurbishment or replacement. In addition, the CF have been without a strategic air refueling capability since the retirement of the Boeing 707 fleet in 1977. The impact of these shortcomings has seriously undermined the effectiveness of the air force, an integral

---

<sup>7</sup> Martin Shadwick, “The Vanishing Air Force?” *Canadian Military Journal*, Vol. 1, No. 3, (Autumn 2000), p 64.

<sup>8</sup> Sharon Hobson, “Latest Directive Gives Air Force New Focus,” in *Janes Defence Weekly*, 3 Feb 2000, reprinted in *Air Force D-Net*, [[http://www.airforce.dnd.ca/airforce/eng.news\\_headlines/whnews6.htm](http://www.airforce.dnd.ca/airforce/eng.news_headlines/whnews6.htm)].

<sup>9</sup> “Yes We Have No Soldiers,” in *Ottawa Citizen Online*, [<http://www.ottawacitizen.com/editorials.010111/5080398.html>], 11 Jan 2001.

<sup>10</sup> Shadwick, “The Vanishing...,” p 64.

<sup>11</sup> John Ward, “Federal Court Gives EH Industries Partial Victory in Helicopter Bid Flight,” *The Canadian Press*, 8 Mar 2001.

<sup>12</sup> John Ward, “Air Force Overhaul,” in *The Sunday Herald*, [[http://www.NewsCan.com/scripts/CShtml.exe?TO\\_P...=%3aS%30%33=%3aS%30%34=@handle=249859392:@I=3](http://www.NewsCan.com/scripts/CShtml.exe?TO_P...=%3aS%30%33=%3aS%30%34=@handle=249859392:@I=3)], 14 Jan 2000.

<sup>13</sup> Hobson, “Latest Directive...”

component of the CF which itself has been characterized as “a dying organization,” the victim of “30 years of government neglect.”<sup>14</sup>

The declining fortunes of the CF can be attributed to a number of factors, but among the most germane are the world’s changed political situation, the government’s shift in policy direction, and the attitude of the Canadian people toward defence matters in general. With the tearing down of the Berlin Wall and the demise of the Soviet Union, it became difficult to envision a plausible scenario in which the existence of Canada was seriously threatened. With the Cold War fought and won, Canadians naturally expected to reap a peace-dividend - reduced fiscal commitment to smaller military forces commensurate with the new, safer world order.

The maintenance of a traditional warfighting capability for sovereignty protection and the imposition of political will is of greatly diminished importance to Canadians, being superseded by a strong identification with the peacekeeping role and a propensity to further national interests through persuasion rather than coercion. These sentiments are reflected in the soft-power and human security agenda concepts of the “Axworthy doctrine” currently informing Canadian foreign affairs policies. One of the central tenets is that “skills in communicating, negotiating, mobilizing opinion, working with multilateral bodies and promoting international initiatives”<sup>15</sup> are the dominating factors in international politics.

While the merits of the Axworthy doctrine are debatable, its fundamentals seem particularly consistent with the attitudes of the Canadian public. In the 1998 poll *Canadians’ Opinions on the CF and Related Military Issues*, respondents identified peacekeeping as the CF’s most important function, well ahead of other traditional military roles, including sovereignty

---

<sup>14</sup> “Yes We Have...”

<sup>15</sup> Fen Osler Hampson and Dean F. Oliver, “Pulpit Diplomacy,” *International Journal*, Vol. 52, No. 3, (Summer 1998), p 389. The authors distilled the essentials of Minister Axworthy’s policy from a survey of his speeches, statements, and activities wh

protection.<sup>16</sup> While Canadians strongly supported CF efforts to maintain an ability to assist Canadians in crisis and deliver humanitarian aid, they were least likely to strongly support CF efforts to maintain a warfighting capability.<sup>17</sup> The pressures such attitudes bring to bear on military budgetary allocations are further exacerbated by a number of other demographic factors, including an aging population more likely to be concerned with health-care and pension issues; a large increase in the number of immigrants, many of whom harbour negative feelings toward military organizations in general; and a lack of identification of the public with the CF owing to “the emergence of a new generation into power which knows little about the military and perhaps values it less.”<sup>18</sup>

It therefore appears highly unlikely that the CF will benefit from any significant and sustained influx of new money sufficient to enable real growth in terms of personnel, equipment, and capability. As Auditor General Denis Desautels reported in 1998, “the Armed Forces doesn’t have the money for about \$4.5 billion worth of required equipment; the size of the force and the roles it is asked to perform can’t be financed with the current budget. Tough decisions must be made or the military will limp along, weakening as it goes.”<sup>19</sup> In order to prevent the continued decline in air force capability, it is crucial that the CF reject some of the traditional assumptions concerning the retention of a balanced air force and embrace the notion of role specialization which promises deliverance from marginalization and irrelevance through the possession of a legitimate capability.

Adoption of a niche capability assumes that the aircraft, personnel, and supporting

---

<sup>16</sup> POLLARA, “Canadians’ Opinions on the Canadian Forces and Related Military Issues,” (Ottawa: Department of National Defence, Dec 1998), p 5.

<sup>17</sup> *Ibid.*, p 40.

<sup>18</sup> David Pugliese, “Strapped Forces Face Even More Cuts,” in *Ottawa Citizen Online*, [[http://www.ottawacitizen.com/military\\_crisis/001014/4685447.html](http://www.ottawacitizen.com/military_crisis/001014/4685447.html)], 17 Oct 2000. Quote taken from anthropologist Donna Winslow.

<sup>19</sup> *Ibid.*, quoted by Pugliese.



infrastructure are of the highest quality. In order to have a credible air transport force, it would be necessary to acquire a fleet of long-range transport aircraft able to carry outsize cargo<sup>20</sup> to compliment the medium-range/tactical transport capabilities of the C-130 and the palletized cargo and passenger transport of the Polaris. Additionally, the C-130s would have to undergo a comprehensive life extension program or be replaced with new aircraft, and both of the current transport fleets could require expansion. The resulting triad of fleets would be able to address the demands of most military airlift scenarios. In order to allow for the necessary level of operational focus and concentration of effort on this specialization niche, it would be beneficial for the air force to divest itself of as many other roles and missions as possible. For instance, command of tactical aviation and maritime air assets could be relinquished to the land and naval forces, respectively. Search and Rescue, which places a significant demand on air force resources, could perhaps be outsourced to a commercial organization or transferred to the Coast Guard.

While these changes could provide heightened focus and unity of effort for the air transport mission, they will not be explored further as they are not essential to the success of role specialization. The assumption of a transport niche capability would, however, necessitate the elimination of Canada's fighter force. As the dominant fleet in the current air force structure, its continued existence would seriously undermine a commitment to air transport specialization. More importantly, financing the expansion of the transport capability would require the transfer of the majority of funds currently spent on operating and supporting the CF-18 fleet. While this represents a radical departure from the past, the impact of no longer maintaining a fighter capability, especially one that has moved steadily toward marginalization, would in fact be

---

<sup>20</sup> "Outsize cargo" refers to equipment that is too large to be transported by C-141 Starlifter transport aircraft. This includes large trucks, bulldozers, medium helicopters, tanks, etc.

minimal to Canada, both domestically and internationally.

The current composition of the air force is still strongly influenced by the Cold War era, when the need for fighter aircraft could be readily and convincingly argued: “We needed interceptors for the defence of North America, and ground attack/air superiority jet fighters for possible use in Europe.”<sup>21</sup> The rationale for the continued support of the fighter force is no longer self-evident. The first sentence of *Defence Planning Guidance 2001* acknowledges that “there is no direct or immediate conventional military threat to Canada”<sup>22</sup> and of the eleven force planning scenarios describing typical future CF missions, only four are potentially applicable to fighter operations - sovereignty protection, defence of North America, collective defence, and peace support operations. The issue is whether or not these missions are sufficient to validate a requirement for the continued existence of the fighter force.

The implications of defending national sovereignty have changed significantly since the Cold War. Today’s threats are of a lesser scale and more insidious in nature, primarily involving criminal incursions into Canadian territory, most notably by the aircraft and ships of illegal drug organizations; security of national resources, such as access to fishing grounds; and territorial disputes, exemplified in the refusal of the U.S. to recognize Canadian sovereignty over the Arctic archipelago. The preponderance of sovereignty issues recently faced by Canada have been resolved through negotiation or arbitration, not being of a nature to warrant military action.<sup>23</sup> In instances when military intervention was required, maritime assets proved quite capable of handling naval situations, as well as being able to provide effective airborne surveillance and

---

<sup>21</sup> Kim Richard Nossal, “Air Power and Canadian Foreign Policy in the Post-Cold War Era,” in *Air Power at the Turn of the Millennium*, ed by David Rudd, Jim Hanson, and Andre Beauregard, (Toronto: Canadian Institute of Strategic Studies, 1999), p 17.

<sup>22</sup> Department of National Defence, *Defence Planning Guidance 2001*, [[http://www.vcds.dnd.ca/dgsp/dpg2001/cha1\\_e.asp](http://www.vcds.dnd.ca/dgsp/dpg2001/cha1_e.asp)], 11 Apr 2000.

<sup>23</sup> D.W. Middlemass and J.J. Sokolsky, *Canadian Defence: Decisions and Determinant*, (Toronto: Harcourt Brace Jovanovich, 1989), p 167.

reconnaissance with Aurora aircraft, which are well suited to this role. The number of instances in which Canadian fighters are required to participate in order to intercept aircraft or force landings are exceedingly rare. Consequently, none of the current threats to Canada's sovereignty, individually or collectively, is sufficient to warrant the maintenance of a fighter force. In the event that criminal activity increased to such an extent as to justify dedicated fast-air assets, it would be more appropriate to outfit law enforcement with a small fleet of aircraft suited to this express purpose, rather than committing overly-capable and excessively costly CF-18s. Any significant military threats to Canadian sovereignty necessarily challenge the security of North America as a whole, and would prompt involvement of the formidable U.S. forces.

The North American Aerospace Defence Command (NORAD) was formed in 1958 to protect Canada and the U.S. from Soviet bomber, and later, missile attack. In the earliest days, the Canadian functional commitment to this alliance included the Distant Early Warning, Pinetree, and Mid-Canada lines for detection of attack, as well as an arsenal of Bomarc missiles and nine squadrons of fighter aircraft, with both weapon systems capable of delivering nuclear strikes.<sup>24</sup> Today's in-country commitment has been reduced to the North Warning System, maintenance of forward operating locations for air interceptors, and two CF-18s on alert in both Cold Lake and Bagotville. While it is undeniable that the threat of attack has greatly diminished, continuance of this reduced level of commitment of fighter aircraft borders on the absurd. While it can be argued that the CF-18s symbolize Canadian commitment to NORAD, realistically it appears to be mere tokenism, with the genuine commitment resident in other areas, such as CF participation at Cheyenne Mountain NORAD combat operation centre and the maintenance of sector air operations control centres in North Bay.

The CF-18 contribution to NORAD risks complete irrelevancy on two levels. Firstly, if

North America did have to prepare against imminent attack, the immense assets of the U.S. military would be deployed when and where required. In this case, the entire CF-18 fleet would be little more than a drop in the bucket to the order of air operations. Secondly, with the implementation of National Missile Defence imminent, the role of fighters in the defence of North America will become de-emphasized and perhaps eventually obsolete. Should Canada disband its fighter force, it has been suggested that compensation to some degree could take the form of allowing the U.S. freer access to Canadian airspace for operations in support of NORAD, including the stationing of interceptors in Canada if the situation warranted.<sup>25</sup> This becomes a question of political palatability – does it create an overly blatant military dependency on the U.S.? In essence, the level of reliance would likely be no different from that which presently exists. Canada depends upon the U.S. for a myriad of military essentials, from parts for the CF-18s to intelligence, surveillance, and reconnaissance information to defending the continent, including Canada, from attack. A continued façade of independence through token CF-18 participation in NORAD is a luxury no longer affordable.

The relevance of a Canadian fighter force to collective defence commitments can be assessed in conjunction with peace support operations, as the underlying critical element is an ability to conduct combat operations within a coalition effort. Despite a proportionately large financial investment in the fighter force, spending restraints have precluded the CF-18 fleet from being a credible and reliable alliance partner, as illustrated during the recent air campaign in Kosovo. The performance of CF-18s garnered much positive publicity, and it is undeniable that Canada performed admirably, able to “punch above its weight”<sup>26</sup> despite serious resource

---

<sup>24</sup> Jockel, *The Canadian Forces...*, p 97.

<sup>25</sup> *Ibid.*, p 126.

<sup>26</sup> Allan Thompson, “Canada Earns Air War Stripes in Kosovo,” in *The Toronto Star*, [<http://www.newscan.com/scripts/CSH...=%3aS%30%34=.@handle=10449360:@I=0>], 29 May 1999.

challenges. While contributing only two percent of the aircraft,<sup>27</sup> Canadian CF-18s flew 678 combat sorties (ten percent of total combat missions flown, third in the Alliance behind the U.S. and Britain),<sup>28</sup> dropping almost half a million pounds of munitions including 361 laser guided bombs.<sup>29</sup> These numbers, however, belie the true state of the fighter force, which was critically deficient in several key areas. For example, the CF-18s were the only combat aircraft not equipped with secure radios, necessitating the use of open communications by the entire coalition. If the enemy had possessed a jamming capability sufficient to interfere with operations, “in all probability Canada would have been told politely to go home.”<sup>30</sup> Other limitations included the inability of our fighters to employ a night vision goggle capability, an insufficient number of forward looking infrared pods to provide all CF-18s in theatre with the ability to deliver precision-guided munitions, a reliance on the coalition for supporting elements such as air-refueling, as well as obsolete mission computers.<sup>31</sup> Major Balfe, a CF-18 pilot who flew in Operation “Alliance” remarked that the Canadian performance in Kosovo was “not an indication of our true capability, nor was it sustainable.”<sup>32</sup> Colonel Davies, Aviano task force commander, stated bluntly, “As it sits, we could not repeat the same level of activity, and in most scenarios we would not be permitted to participate to the same extent, due to our increasingly outdated equipment.”<sup>33</sup>

The Kosovo air campaign was essentially an American effort, with the U.S. providing the vast majority of resources, and demonstrating a marked superiority in technological development

---

<sup>27</sup> LCol David L. Bashow, *et al*, “Mission Ready: Canada’s Role in the Kosovo Air Campaign,” in *Canadian Military Journal*, [[http://www.journal.dnd.ca/vol1/no1\\_e/balkans\\_e/balk3\\_e.html](http://www.journal.dnd.ca/vol1/no1_e/balkans_e/balk3_e.html)], Vol. 1 No. 1, (Spring 2000), p 11.

<sup>28</sup> Thomson, “Canada Earns Air...”

<sup>29</sup> Bashow, *et al*, “Mission Ready...,” p 2.

<sup>30</sup> *Ibid.*, p 14.

<sup>31</sup> Judy Monchuk, “Ageing CF-18s Could Suffer from Poor Aim: Outdated Computers,” in *The National Post*, 31 May 1999, p A6.

<sup>32</sup> Quoted in Bashow *et al*, “Mission Ready...,” p 5.

over Canadian and European alliance partners. This increasing disparity in capability is creating a decided interoperability gap, signaling the end of Canadian fighters being welcome in U.S. led alliance operations. While the CF-18 modernization will rectify some of the deficiencies highlighted above, it comes at the cost of a significantly diminished capability in quantitative terms. Furthermore, the post-upgrade CF-18s will still “not be able to prevail against the latest fighters...[and] will remain vulnerable to the most advanced ground-based air defence systems.”<sup>34</sup> As the U.S. military shows no indication of slowing its rate of technological development, this costly upgrade represents only one of many steps that will need to be taken in order to remain interoperable with the U.S. – a goal Canada remains unwilling to properly fund. Paul Mitchell warns that Canadian CF-18s “may find themselves constantly on the verge of rust-out with the long lead times for the modernizations that have had to be adopted, and thus potentially excluded from future operations, much as they were in the 1995 operations over Bosnia.”<sup>35</sup>

The utility of air transport assets, unlike that of fighter aircraft, spans the spectrum of missions likely to be undertaken by the CF. Air transport could be involved directly or indirectly in the accomplishment of eight of the eleven *DPG 2001* force planning scenarios, including search and rescue, domestic disaster relief, international humanitarian assistance, evacuation of Canadians overseas, Chapter 6 and 7 peace support operations, aid of the civil power, and collective defence. This is indicative of the importance that the possession of military air transport has assumed. In 1994, the Conference of Defence Associations noted that “air

---

<sup>33</sup> Quoted in Bashow *et al*, “Mission Ready...,” p 11.

<sup>34</sup> Jockel, *The Canadian Forces...*, p 97.

<sup>35</sup> Paul T. Mitchell, “The Revolution in Military Affairs and the Canadian Air Force,” in *Air Power at the Turn of the Millennium*, Eds. David Rudd, Jim Hanson, and Andre Beauregard, (Toronto: Canadian Institute of Strategic Studies, 1999), p 31/32.

transport has grown into a key component of Canada's contribution to international security" and that Canadian participation in the vast majority of recent UN operations "could not have been possible without extensive use of tactical air transport."<sup>36</sup> Air transport has also played a significant part in humanitarian operations, such as the airlift of relief supplies into Sarajevo during Operation Airbridge. Canada's increased involvement in low- to mid-intensity operations, in addition to a desire to retain a capability to participate in high-intensity conflicts, makes selection of an air transport niche even more appropriate. The level of technological sophistication and specialization in modern fighter aircraft make them more suited to high-intensity operations, whereas the flexible employability of air transport makes it a more universally applicable asset.

Adoption of a niche capability in air transport would reflect the increasing importance of this capability for the exertion of national will, as well as better representing the nature of the Canadian national identity. Political persuasion and influence through the use of air transport rather than combat aircraft is more consistent with the Canadian self-image of peacekeepers and global good-Samaritans. Consequently, the Canadian public would be considerably more likely to embrace a military fleet which delivers emergency provisions rather than one which drops laser-guided munitions, no matter how precise. More than just a military expedient, air transport is an ideal instrument for the exertion of soft power and advancement of the human security agenda.

The niche capability adopted should address the demands of alliance members, as well as the domestic concerns of the provider nation. This is certainly the case with air transport, which is in woefully short supply not only in Canada, but worldwide. The CF currently has no integral

---

<sup>36</sup> Conference of Defence Associations, *Canadian Security: A Force Structure Model for the 21<sup>st</sup> Century*, (Ottawa, Jun 1994), p 39.

outsized air cargo capability whatsoever, possessing only a medium-range transport fleet pushed to its operational limit through its proximity to retirement, high tasking levels, and mis-utilization in the strategic carrier role. Canada is currently unable to meet its deployment timelines outlined in *DPG 2001* for the Immediate Reaction Force (Land) and Vanguard Elements of the Main Contingency Force, and is even incapable of unilaterally deploying smaller contingents, such as the Disaster Assistance Response Team, if the amount or size of the equipment to be transported is at all ambitious.

Canada's present capability would be greatly enhanced and expanded with the addition of a much-needed strategic outsized cargo carrier fleet. In June 2000, LGen Kinsman, then Chief of the Air Staff, stated that the CF have "a well-established and recognized requirement for an outsized C-17-like strategic airlifter."<sup>37</sup> Currently, to move outsized or large amounts of freight, Canada depends on commercial carriers, normally the Ukrainian company Air Foyle which operates Russian built Antonov-124 aircraft. Reliance upon a non-integral transport asset subjects Canadian political will to the vagaries of the commercial carrier and market influences; political interference in the movement of goods and prohibitive price increases in times of high demand pose very real threats to mission success. During Operation Alliance, for example, the Russian government denied use of Air Foyle's Antonov-124s to move warfighting equipment into theatre. Also, the widespread international humanitarian effort in response to severe flooding in Mozambique in the spring of 2000 caused Antonov charter prices to rise to such an extent that Canada's intended delivery of several helicopters to assist in relief efforts was rendered unaffordable. Commitment to the development of a niche capability in air transport, and the improvement in resources this entails, would thus address Canada's deficiencies in this

---

<sup>37</sup> LGen Kinsman quoted in Scott, "Bolder Budgets..."



area, closing a commitment-capability gap and providing a much higher degree of self-sufficiency.

Air transport shortages are not limited to middle powers such as Canada, but extend even to the U.S., the world's most powerful and wealthy nation. The U.S. realized significant deficiencies in its strategic transport capabilities during the Gulf War, being unable to “deliver heavy brigades and tanks or logistical units very quickly, and ultimately, delivering all U.S. forces to the region took approximately seven months.”<sup>38</sup> Looking into the future lift requirement, a draft of the *American Mobility Requirements Study 2005* stated that “the Pentagon’s mobility plan through FY ‘05 cannot meet the national military strategy of being globally engaged and able to fight nearly simultaneous major theatre wars.”<sup>39</sup> Furthermore, the U.S. is “significantly below its current airlift requirement” and is unable to meet “the Southwest Asia intra-theatre airlift requirement nor the early Northeast Asia airlift requirement.”<sup>40</sup> Clearly, a Canadian transport specialization would be attractive to the U.S. and could open the door for a variety of military offset arrangements. For instance, the withdrawal of Canadian fighters holding NORAD alert could be compensated for by the provision of a specified amount of annual routine airlift, or guaranteed access to strategic lift resources in times of mobilization for the defence of North America.

Europe also has a significant lack of airlift resources. During the Cold War, the scale of NATO European deployment plans was limited due to the proximity of forces to the theatre of operations, the reliance on national logistic support, and the belief that war resulting from

---

<sup>38</sup> Congress of the United States Congressional Budget Office, *Moving U.S. Forces: Options for Strategic Mobility*, (Washington: U.S. Government Printing Office, Feb 1997), p 4.

<sup>39</sup> Fred Wolfe, “Mobility Plan Insufficient to Meet Military Strategy, Draft Study Says,” in *Defence Daily*, Vol. 208 No. 16, [<http://proquest.umi.com/pdqweb?TS=98167...1&Dep=1&did=000000062878097&Mtd=1&Fnt=3>], 24 Oct 2000.

<sup>40</sup> *Ibid.*

Eastern Bloc invasion would be of short duration. NATO now sees “internal conflict in countries on Europe’s fringes,”<sup>41</sup> such as in the Balkans, to be its most serious threat; therefore a “demonstrable Alliance rapid deployment capability will be essential for the credible and effective use of the threat of military response to manage crises and prevent escalation.”<sup>42</sup>

Europe is in the process of adjusting its focus from a third world war scenario to the security challenges of the twenty-first century. NATO, for example, is pursuing the Defence Capabilities Initiative (DCI), with the stated objective of “ensur[ing] the effectiveness of future multinational operations across the full spectrum of Alliance missions in the present and foreseeable security environment with a special focus on improving interoperability among Alliance forces.”<sup>43</sup> The emphasis of European militaries, as with those in Canada and the U.S., is toward more rapidly deployable forces, as shown by the proposed formation of the Eurocorp, a rapid reaction force of 50,000 to 60,000 troops fielded by the European Union, deployable within two months of notice to move.

The European community does not currently possess sufficient assets to realize these ambitious deployability goals, having extreme difficulty in even being able to move troops and equipment to neighbouring Kosovo.<sup>44</sup> NATO, through the DCI, is currently studying ways to rectify its transport shortfall. One approach is the concept of pooled national airlift assets coordinated under the direction of a NATO Mobility Command structure. Role specialization has also been identified as a potential solution, with national core competencies serving “to

---

<sup>41</sup> “NATO’s Defence Capabilities Initiative,” in *NATO On-Line Library*, [<http://www.nato.int/docu/facts/2000/nato-dci.htm>], Apr 2000.

<sup>42</sup> Frank Boland, “NATO’s Defence Capabilities Initiative,” *NATO Review*, Vol. 47, No. 2, (Summer 1999), p 27.

<sup>43</sup> “Fact Sheet: NATO Defense Capabilities Initiative,” in *USIS Washington File*, [<http://www.fas.org/man/nato/news/1999/991202-nato-usia2.htm>], 2 Dec 1999.

<sup>44</sup> Giovanni de Briganni, “Kosovo Air War Expose Major Deficiencies in NATO Capabilities,” in *Defence-aerospace.com*, [<http://www.defense-aerospace.com/data/features/data/fe57/index.htm>].

complement and supplement NATO as a whole.”<sup>45</sup> In this capacity, Canadian involvement would certainly be welcome, adding relevant and capable transport assets, and further strengthening transatlantic ties. The potential for military offsets such as those suggested for NORAD also exists in Europe; for example, the provision of airlift could be used to compensate for the withdrawal of Canadian fighter aircraft from NATO operations.

With the acquisition of a new strategic airlifter, a much needed life-extension program for, or replacement of, the C-130, and the retention of the Polaris fleet, the CF would be operating world class transport assets, appropriate for a nation establishing a specialization role. This is not to say, however, that the adoption of a niche capability would be more costly than maintaining the status quo. Indeed, if the fiscal pressures precipitating specialization are not alleviated, the argument for re-structuring falters. The capital outlay for the procurement of a modest but still substantial and effective fleet of six C-17 aircraft, for example, could be as low as just under \$1.1 billion U.S.,<sup>46</sup> as compared with \$2.5 billion U.S. for a small fleet of 80 of the capable but mid-priced Joint Strike Fighters.<sup>47</sup> These figures do not take into account the considerable costs associated with aircraft procurement including logistics, maintenance and infrastructure, but it would seem reasonable to assume that expansion of the existing transport support system to accommodate a six aircraft fleet would be easily offset by the corresponding reductions associated with the elimination of a relatively large fleet of fighter aircraft and two supporting military bases. Further savings could be realized with the elimination of tactical air refueling and termination of the current acquisition process for a strategic air refueling

---

<sup>45</sup> David W. Read, “The Revolution in Military Affairs: NATO’s Need for a Niche Capability Strategy,” *Canadian Military Journal*, Vol. 1, No. 3, (Autumn 2000), p 22.

<sup>46</sup> Richard Aboulafia, “Strategic Airlift Market Uneven,” *Aviation Week & Space Technology*, Vol. 150, No. 2, (11 Jan 1999), p 22. C-17 unit price reportedly may get as low as \$172 million U.S.

<sup>47</sup> Andrea Nativi, “Combat Aircraft: The New Breed is Coming,” *Military Technology*, Vol. XXII, No. 9, (Sept 1998), p 4. Reported unit price for Joint Strike Fighter to range from \$28 million U.S. for the conventional take-off

capability, as these activities would no longer be required.

There are other important financial benefits associated with the transport niche option. The air force would not be held hostage by the RMA and its expensive technological developments. While modest avionics upgrades for the transport fleets could be expected in response to evolving air traffic control requirements, the related expenditures would not approach those of maintaining state-of-the-art radars, mission computers, and weapon delivery systems in fighter aircraft. The technologies associated with air cargo transport are relatively static, thus greatly minimizing the danger of fleet obsolescence. Additionally, a credible transport capability holds the unique potential of being a revenue generator. For instance, it has been suggested that to defray the cost of acquiring a C-17 fleet, Canada could share excess airlift resources with the U.S. military.<sup>48</sup> Similarly, surplus airlift could be offered to other nations or alliances in exchange for financial, military, or political considerations.

The declining fiscal fortunes of the CF were, to a great extent, the result of a perceived lack of military threat to Canada in the post-Cold War world and the federal government's efforts to control an escalating national debt during the 1980s and 1990s. The reaction of the air force to budgets inadequate to maintain the status quo was to whittle away at personnel and aircraft numbers – even at the expense of operational effectiveness. Change tended to be reactive, with a survival mentality overshadowing any impetus for a comprehensive and fundamental change in structure and focus. It was hoped that the lean times would only be temporary, and that if successfully waited out, the air force would be able to re-blossom into its original state with the inevitable influx of additional funds.

It is now apparent that any hope of returning to markedly larger budgets sufficient to fund

---

and landing version to \$34 million U.S. for the stealth, carrier based version. For above calculation, \$31 million U.S. used.

the multi-purpose and versatile air forces of the Cold War era is unfounded. The political and social factors favouring the continued decrease in military expenditures will not likely be reversed in the foreseeable future. Maintaining the past approach to dwindling budgets will eventually result in an air force that is irrelevant to the nation and its allies, and one that is marginalized in international operations, if not excluded altogether. To avoid this disturbing state of affairs, the Canadian air force should adopt an air transport niche capability, thereby addressing national concerns at home and globally, as well as supporting NORAD and NATO partnerships in a meaningful manner. This necessarily entails eliminating the fighter force which, through inadequate funding, has become at best a marginally effective symbol of Canadian military resolve, and at worst a liability to other nation's air forces in a coalition effort.

Such a fundamental shift in the direction of the air force would require a considerable effort in order to overcome resistance rooted in historical precedence and reluctance to change. However, the air force is currently in a precarious situation, and it would behoove the CF to undertake a serious process of rationalization, one in which analysis is unfettered by bias. In this way, the validity of adopting an air transport niche can be realized, allowing the air force to embrace the new era in global relations as a once more legitimate, effective and proud force.

---

<sup>48</sup> Mike Trickey, "Politics Threaten Plan to Share Aircraft with U.S.," in *National Post*, 22 Jul 2000, p A1.

## Bibliography

- Aboulafia, Richard. "Strategic Airlift Market Uneven." *Aviation Week & Space Technology*, Vol. 47, No. 2 (11 January 1999), p 22.
- Annati, Massimo. "Strategic Airlift and Sealift: A New Challenge for Europe." In *Military Technology*, [<http://proquest.umi.com/pdqweb?TS=98167...1&Dtp=1&Did=000000051901274&Mtd=1&Fmt=4>]. February 2000.
- Aviation Week & Space Technology*. Editorial, Vol. 141, No. 22 (28 November 1994), p 74.
- Bashow, David L., Dwight Davies, Andre Viens, John Rotteau, Norman Balfe, Ray Stouffer, James Pickett, and Steve Harris. "Mission Ready: Canada's Role in the Kosovo Air Campaign." In *Canadian Military Journal*, Vol. 1, No. 1, (Spring 2000). [[http://www.journal.dnd.ca/vol1/no1\\_e/balkans\\_e/balk3\\_e.html](http://www.journal.dnd.ca/vol1/no1_e/balkans_e/balk3_e.html)].
- Boland, Frank. "NATO's Defence Capabilities Initiative." *NATO Review*, Vol. 47, No. 2 (Summer 1999), pp 26-28.
- de Briganni, Giovanni. "Kosovo Air War Expose Major Deficiencies in NATO Capabilities." In *Defence-aerospace.com*. [<http://www.defenseaerospace.com/data/features/data/fe57/index.htm>].
- Canada 21 Council. *Canada 21 – Canada and Common Security in the Twenty-First Century*. Toronto: Centre for International Studies, 1994.
- Canadian Security: A Force Structure Model for the 21<sup>st</sup> Century*. Ottawa: Conference of Defence Associations, June 1994.
- Congress of the United States Congressional Budget Office. *Moving U.S. Forces: Options for Strategic Mobility*. Washington: U.S. Government Printing Office, February 1997.
- Department of National Defence. *Defence Planning Guidance 2001*. [[http://www.vcds.dnd.ca/dgsp/dpg2001/cha1\\_e.asp](http://www.vcds.dnd.ca/dgsp/dpg2001/cha1_e.asp)]. 11 April 2000.
- "Fact Sheet: NATO Defense Capabilities Initiative." In "USIS Washington File." [<http://www.fas.org/man/nato/news/1999/991202-nato-usia2.htm>]. 2 December 1999.
- Hampson, Fen Osler and Dean F. Oliver. "Pulpit Diplomacy." *International Journal*, Vol. 52, No. 3 (Summer 1998), pp 379-406.
- Hobson, Sharon. "Latest Directive Gives Air Force New Focus." In *Janes Defence Weekly*, reprinted in *Air Force D-Net*. [[http://www.airforce.dnd.ca/airforce/eng.news\\_headlines/whnews6.htm](http://www.airforce.dnd.ca/airforce/eng.news_headlines/whnews6.htm)]. 3 February 2000.

- Jockel, Joseph T. *The Canadian Forces: Hard Choices, Soft Power*. Toronto: The Canadian Institute of Strategic Studies, 1999.
- Kinsman, David. "The Future of the Canadian Air Force." *Air Power at the Turn of the Millennium*. Edited by David Rudd, Jim Hanson, and Andre Beaugard. Toronto: Canadian Institute of Strategic Studies, 1999.
- Middlemass, D.W. and J.J. Sokolsky. *Canadian Defence: Decisions and Determinant*. Toronto: Harcourt Brace Jovanovich, 1989.
- Mitchell, Paul T. "The Revolution in Military Affairs and the Canadian Air Force." *Air Power at the Turn of the Millennium*. Edited by David Rudd, Jim Hanson, and Andre Beaugard. Toronto: Canadian Institute of Strategic Studies, 1999.
- Monchuk, Judy. "Ageing CF-18s Could Suffer from Poor Aim: Outdated Computers." *The National Post*. 31 May 1999.
- Nativi, Andrea. "Combat Aircraft: The New Breed is Coming." *Military Technology*, Vol. XXII, No. 9 (September 1998), pp 4-16.
- "NATO's Defence Capabilities Initiative." In *NATO On-Line Library*. [<http://www.nato.int/docu/facts/2000/nato-dci.htm>]. April 2000.
- Nossal, Kim Richard. "Air Power and Canadian Foreign Policy in the Post-Cold War Era." In *Air Power at the Turn of the Millennium*. Edited by David Rudd, Jim Hanson, and Andre Beaugard. Toronto: Canadian Institute of Strategic Studies, 1999.
- POLLARA. "Canadians' Opinions on the Canadian Forces and Related Military Issues." Ottawa: Department of National Defence, December 1998.
- Pugliese, David. "Strapped Forces Face Even More Cuts." In *Ottawa Citizen Online*, [[http://www.ottawacitizen.com/military\\_crisis/001014/4685447.html](http://www.ottawacitizen.com/military_crisis/001014/4685447.html)]. 17 October 2000.
- Read, David W. "The Revolution in Military Affairs: NATO's Need for a Niche Capability Strategy." *Canadian Military Journal*, Vol. 1, No. 3 (Autumn 2000), pp 15-24.
- Scott, William B. "Bolder Budgets Restore Canada's Air Force." In *Aviation Week & Space Technology*. [<http://proquest.umi.com/pqdweb?TS=98167...1&Dtp=1&Did=000000056366931&Mtd=1&Fmt=3>]. 26 June 2000.
- Shadwick, Martin. "The Vanishing Air Force?" *Canadian Military Journal*, Vol. 1, No. 3 (Autumn 2000), pp 64-65.
- Thompson, Allan. "Canada Earns Air War Stripes in Kosovo." In *The Toronto Star*. [<http://www.newscan.com/scripts/CSH...=%3aS%30%34=.@handle=10449360:@I=0>]. 29 May 1999.

Trickey, Mike. "Politics Threaten Plan to Share Aircraft with U.S." *National Post*. 22 July 2000.

Ward, John. "Air Force Overhaul." In *The Sunday Herald*, [[http://www.NewsCan.com/scripts/CShtml.exe?TO\\_P...=%3aS%30%33=%3aS%30%34=:@handle=249859392:@I=3](http://www.NewsCan.com/scripts/CShtml.exe?TO_P...=%3aS%30%33=%3aS%30%34=:@handle=249859392:@I=3)]. 14 January 2000.

Ward, John. "Federal Court Gives EH Industries Partial Victory in Helicopter Bid Flight." *The Canadian Press*. 8 Mar 2001.

Wolfe, Fred. "Mobility Plan Insufficient to Meet Military Strategy, Draft Study Says." *Defence Daily*, Vol. 208, No. 16. [[Http://proquest.umi.com/pdqweb?TS=98167...1&Dep=1&Did=000000062878097&Mtd=1&Fnt=3](http://proquest.umi.com/pdqweb?TS=98167...1&Dep=1&Did=000000062878097&Mtd=1&Fnt=3)]. 24 Oct 2000.

"Yes We Have No Soldiers." In *Ottawa Citizen Online*. [<http://www.ottawacitizen.com/editorials.010111/5080398.html>]. 11 Jan 2001.

.  
.