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Canada's Strategic Lift Capabilities – "Mind if I Get a Ride to the Next Game"

By Lieutenant-Colonel K.G. Horgan

Abstract

Currently, the Canadian Forces lacks the strategic lift assets required to deploy its forces in a timely manner. This situation has resulted in the CF being dependent upon Allied and commercial resources to successfully deploy. Yet, these resources are in short supply and high demand placing the ability of the CF to deploy at considerable risk. At the same time the strategic landscape is evolving and the need for rapid deployment in order to contain the spread of regional conflicts is increasing. Globalization has resulted in the potential negative impact of these conflicts quickly reaching distant shores, greatly reducing the decision cycle for intervention. Additionally, the Canadian Government continues to utilize the CF as a means of supporting Canada's national interest and contributing to the stability of the global security environment. These factors clearly point to the need to improve the strategic lift capabilities of the Canadian Forces. However, the high cost of these assets would place a severe strain on the limited capital budget presently available within the Department of National Defence. In order to improve these capabilities it is likely that the CF will need to scale back in other more traditional competencies and employ a high level of ingenuity in order to secure the necessary strategic lift platforms. This lack of strategic lift resources presents a considerable challenge to the CF but one that must be addressed in order to enhance the operational effectiveness of the CF in the 21st Century.

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Introduction

"Excuse me, can I get a lift to the next game?" We all know this person. He is the guy who never has tape for his hockey sticks and is usually missing a piece of vital equipment. He usually lives on the other side of town and always is looking for a ride to the next game. However, he is still a good player and he is always willing to play no matter the time or the place. Everyone thinks he has a great family but they figure he should be given a bigger allowance so he can carry his weight around the team. In the game of deployed military operations, this player is Canada!

In March 2002, Prime Minister Jean Chretien was interviewed concerning the military's need for increased funding to replace and upgrade aging equipment. He stated that he believed the Canadian Forces (CF) did not need additional funding.[1] On the issue of strategic airlift, he stated that he believed the CF could rent airlift or depend upon the United States as a taxi service when required.[2] Yet, only the month before, Paul Cellucci, the U.S. Ambassador to Canada stated in a speech in Ottawa, that Canada should commit to improving its strategic lift capability.[3] He noted, "even the U.S. military, with all its vast resources, does not have enough strategic lift capability…"[4] This fact was proven during the Gulf War when the U.S Military Airlift Command was so overwhelmed with U.S. demands; it in fact out-sourced additional capacity from a number of third party nations.[5]

As a result, Canadian out-sized equipment slated for deployment to the Gulf War, for which Canada had no capacity to carry, never left the tarmac at CFB Lahr. CF personnel

[1] Robert Fife, National Post article 19 March 02 detailing interview on CBC-TV with Prime Minister Jean Chretain 18 March 02. Accessed at http://nd2.micromedia.ca/application/cbcaget.exe on 7 October 2002.
[2] Ibid, National Post article.
[3] Paul Cellucci, U.S. Ambassador to Canada, speech given to the Canadian Defence Industries Association 14 February 2002 in Ottawa titled "North American Security". Accessed at http://www.usembassycanada.gov/content/content.asp?section=embconsul&document=cellucci_021402 on 12 April 2003.
[4] Ibid, Cellucci speech.
[5] James Matthews and Cora Holt, So Many, So Much, So Far, So Fast, (Washington, D.C.: U.S. Government Printing Office, 1996), p. 51.

in theatre were forced to borrow U.S. and Qatari heavy equipment in order to complete the critical task of airfield construction.[6] Additionally, this equipment was only available from midnight until 0600 hrs, severely limiting the ability of Canadian Engineers to complete the airfield, and therefore jeopardized the ability of the CF contingent to meet operational timelines.[7] Additionally, it has been speculated that one of the main reasons why Canadian land forces were never deployed during this conflict was due to a lack of available lift resources to deploy the force in a timely manner.[8] This lack of resources included Canadian, American and commercial assets.[9] It would appear that in time of crisis, the Prime Minister's planned dependence on another source for our strategic movement might not be the most reliable tactic.

Unfortunately, for the CF it is not only in the matter of airlift on which we are vulnerable. In the summer of 2000, the *GTS Katie* incident illuminated our exposure in the area of sealift. Contracted to ship 10% of the CF's Land Forces equipment back from a mission in Kosovo, the ship's Captain refused to enter Canadian waters until a third-party contract dispute was resolved.[10] In the end the military was forced to take the ship by force to return the equipment. As one analyst was quoted during the *GTS Katie* incident… " what would have happened if this had taken place when we were sending troops and equipment overseas, instead of returning them to Canada? We would have a very significant problem, to say the least."[11] Again the CF does not currently possess any substantial strategic sealift capability and must depend on others to provide this basic but critical military function. When one adds our shortcoming in the field of strategic air-to-air refuelling, a strong case is built to show that the Canadian Forces has been marginalized as a deployable military force by its inability to get to the game.

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[6] Major Jean Morin and Lieutenant-Commander Richard Gimblett, Operation Friction, (Toronto: Dundurn Press, 1997), p. 108.
[7] Lieutenant-Colonel Rick Boivin, Canadian Engineer Commander OP FRICTION Rotation Zero, September-December 1990. Interviewed November 2002.
[8] David Rudd, "Strategic Sealift and Airlift: The Neglected Dimension of Canadian Defence Policy", (Halifax: Dalhousie University, 1995), p. 75.
[9] Ibid, p. 75.
[10] Richard Dooley and Rebecca MacEachern, Halifax Daily News article 31 July 2000. Accessed at http://nd1.micromedia.ca/application/printmaildoc.asp on 21 0ctober 2002.
[11] Article Vancouver Province 25 July 2000. Accessed at http://nd1.micromedia.ca/application/printmaildoc.asp on 21 October 2002.

This lack of capability appears to be in conflict with the stated governmental concept for global peacekeeping of 'early-in, early-out'. As well, "Strategy 2020" the CF's framework document for future planning and decision-making, lists 'Globally Deployable' as one of the eight objectives for the future.[12] However, statements made by Government leaders such as those made by the Prime Minister on airlift, appear to call this objective into doubt.

Canada is not alone in facing this limitation in our military wherewithal. During the Cold War it was assumed that the fight would take place in Central Europe. As the majority of the equipment was in-theatre, most NATO countries, with the key exception of the United States, considered strategic lift a low priority.[13] However, with the changing geo-political environment the need for force projection and deployability has increased dramatically.[14] There is a growing requirement to deploy early in order to stop the spread of conflicts.[15] For Canada the concern is multiplied by our geographic isolation from the majority of the worlds trouble spots. Other countries have recognized this changing milieu and are taking steps to address this issue by increasing their strategic lift capabilities.[16] The United Kingdom, Germany, France and Australia have all identified rapid deployability as one of their strategic goals and highlighted the need for increased strategic lift to achieve this goal.[17] Canada has also recognized this requirement in Strategy 2020 but to date, political support has been guarded.

The Canadian Forces currently has three long-term capital projects designed to address these shortcomings: the Future Strategic Airlift Project; the Afloat Logistics and Sealift Capability Project; and the Strategic Air-to-Air Refuelling Project. However, with the

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[12] Department of National Defence, "Strategy 2020", Ottawa, June 1999, p. 10.
[13] Department of National Defence, Ben Lombardi, ed, " New Defence Policies for a New Security Environment", Ottawa, April 2002, p. 211.
[14] Elinor Sloan, The Revolution in Military Affairs, (Montreal: McGill-Queen's University Press, 2002), p. 143.
[15] United Kingdom Ministry of Defence, "Defence Policy 2001", November 2001, p. 6. Accessed at http://www.mod.uk/issues/policy2001/context.htm on 2 April 2003.
[16] DND "New Defence Policies", p. 216/218.
[17] Department of Nation Defence, Elinor Sloan, Project Report NO. 99/03, "Allied Approaches to the Revolution in Military Affairs", Ottawa, 1999, p. x.

exception of the refuelling project, support and funding for these projects are not expected in the foreseeable future. [18]

In the following pages this paper will examine the future requirement for Canadian strategic lift capabilities. Chapter One will define strategic lift and provide a comparison of sealift versus airlift and the advantages and disadvantages of both. It will also provide a historical perspective and discuss the impact of strategic lift or the lack thereof on past operations. Chapter Two will review current Canadian capabilities and limitations. As well, it will consider the capacity of our allies and the availability of commercial assets and review the consequences of dependence on others for strategic movement. Chapter Three will discuss the changing world and will show that a lack of dependable strategic lift will limit the effectiveness and usefulness of future militaries. It will also show that the Canadian Forces cannot achieve current Government-assigned tasks with our existing lift assets.

Once the case in support of strategic lift is made, Chapter Four will examine how best to implement strategic lift projects within the current fiscal realities of the Canadian Forces. It will then explore two available options for providing this capability; leasing from commercial entities, and resource-pooling in the context of NATO. The case for strategic lift is strong for any country that wishes to contribute to global security in the post 9/11 environment. This paper will highlight that Canada must improve its strategic lift capabilities in order to allow the Canadian Forces to meet Government-assigned commitments and further our national interests.

[18] The refuelling project is the only one of the three to have funding approved. It will only reach operational status in FY 2005/06 and hence we can expect longer delays for the two other capabilities.

Chapter One - The Role of Strategic Lift

Although there are many modern day examples of strategic lift, two cases from our recent past may best help to illustrate the significance of this key capability. During World War II, long convoys of ships transversed the North Atlantic providing raw materials, equipment and personnel in support of the war effort. The delivery of these assets was one of the critical factors in the eventual success of the Allied campaign in Europe.[19] Following the war, the Soviet Union blocked land access to Berlin. The Berlin Airlift followed, bringing supplies and protecting an emerging democracy for the people of West Berlin.[20] These are examples of strategic sealift and airlift in action. Today the crafts, speeds and volumes have changed but the importance on this capability has not diminished but rather increased immensely.

Before considering the background of strategic lift, one must step back and examine the wider theory of military logistics. Jomini described logistics as "the practical art of moving armies".[21] In Supplying War, Martin Van Creveld, expands on this base and defines logistics as, "the practical art of moving armies and keeping them supplied".[22] In today's joint context this characterization would evolve into, 'the practical art of moving forces and sustaining them.' In addition to his definition, Van Creveld concludes what many others have also determined, that commanders must consider logistics before any engagement because it is logistics that provides the means to conduct warfare.[23] From these observations it is clear that logistics is a key factor to success on the battlefield and that strategic lift is a vital component of logistics, as it supports both the movement and sustainment of forces.

The "Canadian Forces Operations Manual" defines strategic movement as the movement of personnel and material between areas of normal location and an area of operations or

[19] Spencer Dunmore, In Great Waters: The Epic Story of the Battle of the Atlantic, (Toronto: McCelland and Stewart, 1999), p. 300.
[20] Keith Chapman, Military Air Transport Operations, (London: Brassey (UK) Ltd, 1989), p. 3.
[21] Antoine Henri Jomini, The Art of War, (London: Greenhill Books, 1996), p. 252.
[22] Martin Van Creveld, Supplying War, (London: Cambridge University Press, 1977), p. 1.
[23] Ibid, Supplying War, p. 1.

between areas of operation.[24] The distance involved is not necessarily the key but the fact that the movement is into rather than within an area of operations (AOR). Movement within an AOR is considered to be operational movement.[25] Given Canada's geographical location with respect to envisioned deployment areas, this movement is liable to involve long distances.[26] However, strategic movement may also occur within Canada during domestic operations. In conclusion, it is the character of the movement that is important not the nature of the operation.

The "Canadian Forces Movements Manual" lists four Principles of Movement; centralized control, regulation, flexibility and maximum utilization.[27] It goes on to state that these Principles of Movement are interdependent. Regulation can only be effected through centralized control; flexibility is best maintained through regulation and maximum utilization can only be achieved by applying the other three principles.[28] The key deduction from these principles is the fact that movement of military forces is a complex and well-developed endeavour.

In addition to these principles there are three basic criteria used to select the amount and type of lift required.[29] These criteria are; force composition, deployment location and closure time. The first two of these criteria are relatively straightforward. They involve the amount of material that must be moved over a specific distance to the deployment location. The third involves the amount of time available to deploy the force. This measure can depend on a variety of factors including; pre-agreed upon timelines such as NATO commitments, political direction and the current tactical situation in the deployment area. For planning purposes, it is generally assumed that it will take 30 days to establish the Sea Lines of Communications (SLOCs).[30] In this period movement must

[24] "Canadian Forces Operations Manual", B-GG-005-004/AF-000, 2000-12-18, p. 28-1.
[25] Ibid, p. 28-1.
[26] Department of National Defence, "Military Assessment 2002", prepared by Peter Johnston, Ottawa, 2002, p. 25.
[27] "Canadian Forces Movements Manual", CFP 303 (10), B-GL-303-D10/FD-001, p. 1-2-2.
[28] Ibid, "Movements Manual", p. 1-2-2
[29] Department of National Defence, "Future Strategic Airlift Study", Ottawa, June 2000, p. 6.
[30] Ann Drach, "The Strategic Mobility Shortfall: Underrepresented, Underfunded and Unresolved", Fort Leavenworth, U.S. Army Command and General Staff College, 1995, p. 10.

be predominantly by air. Once the SLOCs are established the balance should shift to sealift. These figures are only guidelines and each deployment will present its own set of circumstances.

There are of course many means to conduct movement. The Movement Manual lists seven: sea, rail, road, air, inland waterway, animals and pipeline.[31] However, we will limit ourselves to review in detail only two: sea and air. The main advantage of sealift is its large capacity and endurance. Its principal limitations are its vulnerability and slow speed.[32] Additionally, sealift today is limited by the requirement for suitable port facilities and equipment, which are likely to be extremely congested during a large coalition operation. Another limitation is the fact that in most circumstances a long road move will be required to reach the final deployment area. Despite these limitations, sealift remains the most economical means to conduct large-scale military movements. However, there appears to be a recent trend in Western militaries towards lighter forces, required in theatre faster than sealift can accomplish.[33] This new development, which will take several years to evolve, may lead to a shift in the balance between sealift and airlift assets.[34] Another developing factor in the move towards airlift is the growing need to quickly ship speciality parts to support the many high-tech systems fielded by today's forces.[35] If the current trend towards leaner forces, heavily dependent upon state of the art equipment continues, then this issue will likely grow in magnitude.

Speed and flexibility are the key advantages of airlift.[36] Within days large forces can be deployed around the world. However, this speed comes at a cost. Airlift resources are expensive and require large amounts of fuel in comparison to their loads.[37] Like sealift, they require suitable facilities to off-load but with modern aircraft such as the C-17, the

[31] "Movements Manual", p. 1-2-4.
[32] "Movements Manual", p. 1-2-5.
[33] Sloan, p. 11.
[34] Thom Shanker, New York Times article from interview with U.S. Air Force General John Wary, Commander of the U.S. Transportation Command, 14 January 2003, 4. Accessed at wyiwyg://20/http://www.nytimes.co on 11 February 2003.
[35] Drach, p. 11.
[36] Mary Bonnet, "Strategic Airlift is Air Power", Alabama, Air War College, 1993, p. 3.
[37] Chapman, p. 6/7.

standard for these facilities is becoming more austere. Again in times of crisis any suitable airfields are likely to be overcrowded with coalition forces struggling for the same

vessel is $409M Cdn million per ship.[39] These costs represent a substantial proportion of the CF's yearly capital equipment program.

Depending upon another source to provide this capability also has its limitations. In the first place, strategic lift resources are scarce and in times of crisis it is probable that many nations would be bidding for the same commercial resource.[40] Hence, a nation would be at the mercy of market factors to secure this vital resource. A nation could also depend upon one of its allies to provide this service. However, it is anticipated that in times of deployment, strategic lift resources will be extremely limited and that a nation without its own means to get to the show, could be potentially shut out of the operation.[41] In both these cases, there is also the perceived and real loss of sovereignty if a nation does not have the means to meet its national security objectives.

From a historical perspective, strategic lift has been an important factor in a nation's war fighting capacity for over 2000 years.[42] Throughout the 16th to19th Centuries, strategic sealift and the maintenance of sea lines of communication were critical aspects in the colonization of many parts of the world by European nations. In conflicts throughout the 20th Century strategic lift has played a key role. During both World War I and II, the use of sealift from North America to Europe was vital to the Allied victory and in the case of WW II it was a signal to Stalin of Allied resolve. The Berlin Airlift helped to halt the spread of communism. The Inchon landings in Korea were an example of a strategic amphibious movement that had an overwhelming impact on the final outcome. In recent conflicts, the lift resources of the United States have played a significant role. In the Gulf War, airlift carried the first credible blocking force against an Iraqi invasion on Saudi Arabia.[43] The forces that followed by sealift delivered the offensive punch required to

[39] Department of National Defence, "Strategic Lift Concept Study and Analysis: for Project M2673 – ALSC", April 1999, p. 7.
[40] Airlift Study, p. 4.
[41] Airlift Study, p. 29.
[42] DND "New Defence Policies", p. 211.
[43] Bonnet, p. 3.

knock Iraq out of Kuwait.[44] In Afghanistan, American airlift was the enabling factor to support the deployment and sustainment of coalition forces in this land-locked country.

Canada has participated in a number of these recent operations and there are several uniquely Canadian examples. Canada was able to rapidly deploy significant land forces during the Suez Crisis using the aircraft carrier *HMCS Magnificent*.[45] During the Gulf War, the CF deployed a credible fighter force using our limited strategic airlift resources. The deployment totalled 79 chalks and 700 tonnes of material over a 10-day period.[46] One example where strategic lift was not used serves to highlight an important change in Canada's strategic situation. When the first CF elements deployed to the Former Republic of Yugoslavia in 1992, they moved by road and rail from CF bases in southern Germany. These bases are now closed and the movement of a similar amount of equipment in a timely manner would be a daunting task. However, in the majority of the missions since the end of the Cold War, Canada has depended upon commercial or allied resources for its strategic movement.

This chapter has shown that strategic lift is a well-developed endeavour with a strong doctrinal base. History has shown the vital importance of this capability in a large number of operations. There are a number of characteristics that distinguish sealift and airlift and the advantages and limitations of both have been shown. As well the critical aspect of ownership versus third party arrangements has been explored. We will now consider our present capabilities in this field and explore the holdings of our allies as well as the availability of commercial resources.

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[44] Gregory Copley, "New World, New Wars", Defense and Foreign Affairs Strategic Policy, Alexandria, October 2002, p. 6. Accessed at http://proquest.umi.com on 15 April 2003.
[45] Parliament of Canada, Standing Committee on National Defence and Veterans Affairs, "Facing Our Responsibilities", Ottawa, May 2002, p. 48.
[46] Morin, p. 103.

Chapter Two – Existing CF, Allied and Commercial Assets

One might expect a country such as Canada, with a long history of peacekeeping and deployments around the world, to possess a robust strategic lift capability. The fact of the matter is that the Canadian Forces have extremely limited strategic lift resources. Canada, like most of her NATO allies, spent the Cold War with a significant percentage of her combat forces pre-positioned in Central Europe. Limited emphasis was placed on strategic movement, as the forces were pre-positioned in what was expected to be the theatre of operations.[47] In light of the rapid changes in the world's geo-political environment, the need for rapid deployment has been greatly increased.[48] However, Canada and her allies have been slow to react due to the large capital costs associated with strategic lift transport.[49] Following NATO meetings in June 2002, where strategic lift was identified as an alliance shortfall, members endorsed a move towards collaborative acquisitions in this field.[50] Canada is considering this path.

Canadian Assets

The CF currently possesses an extremely limited capability in the field of strategic lift. Many capability reviews have noted this shortfall and projects have been identified to address this gap, however, to date funding approval has remained elusive. Within the Navy our current capability consists of two Auxiliary Oiler Replenishments ships (AORs). These ships, both over 32 years old and nearing the end of their lifecycle, were designed as fleet replenishment ships and have only minimal strategic lift capabilities.[51] They are required to provide support to the fleets on both coasts and any employment in the strategic lift role greatly reduces or eliminates their ability to support the fleets.[52] However, it should be noted that these vessels have played a limited lift role in support of

[47] DND "New Strategic Concepts", p. 211.
[48] Department of National Defence, S.E Speed, ed, "Strategic Assessment 2002", Ottawa, September 2002, p. 142.
[49] Sloan, p. 138.
[50] CFC Faculty Notes #2, Overview of NATO Meetings – May/June 2002, Ben Lombardi.
[51] ALSC Concept of Employment Paper, p. 5.
[52] ALSC Concept of Employment Paper, p. 5.

operations in Somalia and East Timor and humanitarian relief following Hurricane Mitch in Florida.[53] But these roles have been limited and Canada has depended on commercial sealift assets to conduct the vast majority of our operations in the past 10 years.[54]

Within the Air Force strategic lift resources are also in short supply. The CF presently operates five C-150 (A310) Polaris aircraft acquired from Canadian Airlines in 1995. Four of these aircraft have been modified to be capable of transporting passengers, palletized cargo, or a combination of the two and are only suitable for strategic lift of these types of resources.[55] However, this fleet does not possess the capability of deploying any wheeled freight and requires specialized equipment to load and unload.[56] In addition it has been announced that two of these aircraft will be further modified to function in the strategic air-to-air refuelling role. As welcome as this news is to the CF, once this role is assumed, it will further reduce the CF's limited lift resources.

The CF also operates a fleet of 32 C-130 Hercules aircraft. The C-130 is designed as a tactical lift aircraft and has been successfully employed in this role and many others by a large number of the world's air forces. In fact, it is considered to be one of the most effective and capable tactical airlift aircraft ever built.[57] It is the only CF aircraft capable of transporting wheeled vehicles and it does not require specialized equipment for offloading. However, in the Canadian context one of the multi-roles that has been undertaken has been strategic lift, a task for which it is not designed and its effectiveness is limited.[58]

Currently the CF can make 16 of these aircraft available on a daily basis for operations. Four of these are required for Search and Rescue requirements, while the others perform a wide variety of functions. "A significant shortfall arises when large scale deployments

[53] Mark Romanow, "Canada's Strategic Sealift Conundrum", Edmonton, p. 2. Copy of paper available for review.
[54] SCONVA Report, p. 48.
[55] Airlift Study, p. 3.
[56] Airlift Study, p. 3.
[57] Chapman, p. 72.
[58] Airlift Study, p. 3.

are superimposed on day-to-day operations."[59] To balance these two requirements the CF has tended to use commercial or Allied assets when operational requirements dictated the use of strategic airlift. Moreover due to its relative small size, limited payload and the inability to carry out-sized cargo, it would be extremely ineffective to use the current C-130 fleet to strategically deploy a large CF contingent.[60]

From the preceding paragraphs it is clear that Canada faces severe shortages in the area of strategic lift. This has forced the CF to rely upon both commercial capabilities and those of our Allies, principally the United States. Yet, as we will see, both of these means come at a price and with a substantial list of limitations.

Our Allies

With the notable exception of the United States, the majority of our Allies face the same shortfalls as the CF when it comes to strategic lift. This is undeniably the case when it comes to airlift. They, like us, saw the battlefield as Central Europe and as they were already there, strategic lift was not a consideration. Currently, the only country besides the United States and Russia to possess long-range strategic lift aircraft[61] is the United Kingdom, which recently leased four C-17 aircraft from Boeing.[62] NATO has recognized this shortcoming. In its recent Strategic Concept document it has called deployability and mobility an "essential operational capability".[63] Nations are responding but have yet to finalize funding. Seven European nations have signed a Memorandum of Understanding (MOU) to purchase a number of Airbus A-400M aircraft with the first planned delivery scheduled for 2008.[64] However, the plane has yet to reach the production line and the number of aircraft has already been reduced from 196 to 180.[65] With continued pressure on military budgets this number could be further reduced.

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[59] Airlift Study, p. 3.
[60] Airlift Study, p. 3.
[61] Long-range defined as a maximum range of 4,500kms, while maintaining a heavy payload.
[62] DND New Defence Policies, p. 215.
[63] Elinor Sloan, "Speeding Deployment", NATO Review, Spring 2001, p. 30.
[64] Airbus Military Website. Accessed at www.airbusmilitary.com on 30 March 2003
[65] Airbus Military Website. Accessed at www.airbusmilitary.com, on 30 March 2003.

In the meantime Western nations must rely upon the United States, which has a fleet of over 350 long-range lift aircraft.[66] Despite the size of this fleet then Chief of Staff of the United States Air Force (USAF), General Ronald Fogleman, noted in an address in 1997, "the single biggest deficiency…(in the Department of Defence)… is strategic lift".[67] A more recent confirmation of this situation is highlighted in the "2001 Quadrennial Defense Review" (QDR), which will guide U.S. defence policy for the next four years, where enhanced strategic airlift capabilities was given particular importance.[68] Despite these shortcomings in U.S. assets, it appears America's allies continue to plan for and rely upon U.S. lift. In a study conducted in 1998 of several established and new NATO members, it was found that their contingency plans for the deployment of forces in support of NATO operations assumed the availability of U.S. resources.[69] One of these countries, Italy, found out the hard way about the critical state of U.S. capability, when requested support for their deployment to Somalia was not available from the United States.[70] Canada's experience during the Gulf War could be added to this list of misplaced dependence. Given this environment, it is extremely risky for Canada and other NATO nations to depend upon the United States for strategic lift.

Nevertheless, Canada does have agreements with the U.S. to share lift resources. The success of the deployment of the Canadian Battle Group to Afghanistan highlights the benefits of this arrangement. However, there are issues to be considered. First is the financial cost. The USAF charges $17,200 (US) per hour for their C-5 and $7,500 (US) per C-17 hour.[71] The total cost for the U.S. support to deploy our personnel and

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[66] DND "New Strategic Concepts", p. 31.
[67] Speech by Gen Fogleman, USAF Chief of Staff, Titled 'Air Power and National Security' given in Washington D.C 24 Jan 1997. Accessed at http://www.dtic.mil/search97bin/aulimp/viewer?YEAR=1999&ID=6778 on 12 March 2003.
[68] U.S. Department of Defense, "Quadrennial Defense Review (QDR) 2001", Washington, D.C., October 2001, p. 8.
[69] Phillip Gick, "NATO's Force Projection: Where's the Lift?", (Carlisle, PA: United States Army War College, 1998). The study reviewed force projection plans for Poland, Hungary, the Czech Republic, Italy, Germany, France and the United Kingdom.
[70] Gick, p. 23.
[71] OP APOLLO Movement Statistics obtained from NDHQ J4 Movement Operations, Major Mike Rafter dated 24 May 02.

equipment from Edmonton to Afghanistan, one-way, was $17.5 million (US).[72] Second, is the question of how dependable is the U.S. support and is there any kind of guarantee in times of crisis. Of course the support is not guaranteed and is dependent upon a wide range of issues including availability and political considerations. As noted above, the U.S. considers itself lacking in lift assets. The Mobility Requirements Study-05 conducted in 2000 confirmed this shortfall. Although the report is classified, a shortage of up to 10 % of the minimum airlift to support planned requirements, was identified.[73] Commenting on the lift situation, then Air Force Secretary F. Whitten Peters noted in 2000, "…expeditionary operations…are going to require more strategic airlift."[74]

A third issue to consider is sovereignty. Should a sovereign nation depend upon another nation to deploy its armed forces? This matter is an important and complicated issue, which demands thorough review on the part of any government that selects this option. An interesting view on this matter comes from U.S. Ambassador to Canada Paul Cellucci. In a speech in Ottawa, he stated "it seems a bit ironic that some see further defence cooperation with the U.S. as a threat to Canadian sovereignty, but the need to rely on other countries to provide lift to deploy Canadian forces as perfectly acceptable."[75] Given the lack of assurance in securing these foreign owned assets Ambassador Cellucci would appear to have a very valid point. Canada's recent mission to Afghanistan may serve as a case in point. It is highly likely that a critical factor in Canada deploying in a combat role with U.S. forces vice a more traditional peace support role with the British, had little to do with the value of the much praised Coyote to U.S. forces and much more to do with which country could assist Canada in deploying to this land-locked region.[76] One would expect that sovereign, first-world nations, such as

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[72] OP APOLLO Movement Statistics obtained from NDHQ J4 Movement Operations, Major Mike Rafter, dated 24 May 2002.
[73] John Tirpak, "The Airlift Shortfall Deepens", Air Force, April 2001 Vol. 84 No.4, p. 1. Accessed at http://www.afa.org/magazine/April2001/0401airlift.html on 7 April 2003.
[74] John Tirpak, "A Clamour for Airlift", Air Force, December 2000 Vol.83, No. 12, p. 1. Accessed at http://www.afa.org/magazine/Dec2000/1200airlift.html on 7 April 2003.
[75] Cellucci speech 14 Feb 2003.
[76] U.S. support to this deployment is well documented in this paper. In an article titled "NATO Warned on Capabilities Gap" in Jane's Defense Weekly, 29 May 2002, Luke Hill notes of the long delays in deploying the UK-led force into Kabul. This was the result of a lack of airlift assets within the countries deploying.

Canada, would not be making critical foreign and defence policy decisions, on who is kind enough to drive them to the game.

With regards to sealift, the situation is not as dire but there remains a significant deficit. Many of our Allies possess sealift capability in the form of amphibious assault ships. For cargo and container capabilities, nations generally depend on commercial resources, where many have passed legislation providing directed access in times of crisis.[77] Again the U.S. leads the way with an extensive fleet of both amphibious and cargo shipping. Though, as with airlift, the U.S. faces it's own limitations. In Moving Mountains, General Pagonis, the U.S. logistic commander in the Gulf War noted, "the United States needs to augment its fast-sealift capability…given the increasing need for our Armed Forces to project themselves rapidly…we must ensure that we can move our troops and equipment across the oceans."[78] As a confirmation of this need it should be noted that approximately 30 percent of the U.S. military cargo shipped to theatre for the Gulf War, was carried by foreign-flagged commercial shipping.[79]

One dynamic that plays a significant role in the availability of integral lift assets within Western militaries is the fact that these same resources, in limited supply, are available on the commercial market. This reality has eased the pressure on Western governments when the purchase of these costly assets has reached the decision point. However, as will be discussed in the next section, there are a number of limitations within this industry and in fact the list of challenges is growing. For the time being, this availability of commercial assets is likely to continue to make governments and militaries facing difficult budget decisions, hesitate to commit to the purchase of lift platforms.

Clearly, Canada is not alone when it comes to a deficiency in strategic lift capabilities. Many Western nations face similar shortfalls and although several are closer than Canada to implementing projects to address the issue, most have yet to commit funding. What

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Given this circumstance it is unlikely they would have been able to support the Canadian movement as well.

[77] DND "New Strategic Concepts", p. 213.

[78] William Pagonis, Moving Mountains, (Boston: Harvard Business School Press, 1992), p. 203.

[79] Drach, p. 11.

should be clear from above is that many nations deploying at the same time, to the same location, will be bidding for the same resources. A supplier's dream and a bidder's nightmare. Let us now explore what commercial assets are available for this bidding war.

Commercial Resources

As has been highlighted above, one challenge facing supporters of integral lift assets is the fact that these same resources are available for hire on the commercial market. From a purely business case scenario it can be difficult to justify ownership versus chartering. However, when one factors in the limited supply, high demand, response time, lack of national control and political and sovereignty issues, the case for integral assets becomes a strong one. For the time being, we will limit our focus to the availability of commercial assets and their limitations and later we will review in detail the case of integral versus chartered resources.

Let us first consider the availability of airlift. There are a large number of charter aircraft available for strategic movement of passengers and palletized cargo. A number of Western airlines provide this service and many NATO nations including Canada and the United States use this service on a regular basis. During the Gulf War, the U.S. used this means through its established Civil Reserve Air Fleet (CRAF) to fly over 5550 missions in support of OPERATION DESERT STORM.[80] From a Canadian perspective the key point would be that the CF has integral resources, the C-150, available for this task and uses the charter service to supplement this capability during surge periods. Given the wide availability of this capability through Western airlines and the fact that if the operational parameters dictate, the CF can support the deployment of large numbers of personnel with its own assets, this aspect of strategic airlift is not a key shortfall for the Canadian Forces. The same cannot be said for the more critical requirement of deploying out-sized wheel vehicles and large quantities of material within short timelines. In this

[80] Drach, p. 11.

field there are only a small number of suitable commercial aircraft and Canada possesses no similar integral resources.

The heavy lift aircraft currently available on the commercial market are assets from the former Soviet Union. At the moment,[81] there are 16 Antonov An-124 aircraft for charter.[82] Canada has successfully used these aircraft on a number of occasions, most recently for the deployment of the follow-on infantry company to Afghanistan.[83] Despite this success, there remains a host of limitations with the employment of these aircraft. As was discussed earlier, Canada is but one of many nations with a strategic airlift shortfall and it can be assumed that in times of international crisis, when deployment times will be most critical, many nations will be bidding for the same limited resource, greatly increasing their cost.[84] Compounding this dynamic can be additional cost factors such as insurance for deployment to high-risk areas. As an example a single An-124 chalk to East Timor in 1999 cost the CF in excess of $700,000.[85]

Additionally, Canadian sovereignty is affected by this dependence on commercial airlift resources. The available heavy-lift aircraft remain under the control of the Russian and Ukrainian governments. Hence, if these nations are not in support of a planned international deployment, they are unlikely to permit the use of these aircraft to support such a mission. By example during the 1999 Balkan Air Campaign, to which the Russian and Ukrainian governments opposed NATO involvement, they did not allow the use of these aircraft to deploy British military equipment.[86] For Canada, with no heavy-lift capability, this should serve as a serious reminder of the limitations of commercial resources.

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[81] These are the only assets currently available. There remains the possibility of additional former Soviet aircraft entering the market.
[82] Department of National Defence, "Statement of Operational Requirements (SOR) for Future Strategic Airlift Project", Ottawa, 2002, p. 4.
[83] OP APOLLO Movement Statistics. Note move was for the movement of 2 PPCLI Rifle Company from Winnipeg to Germany. The movement involved 10 commercial flights including 3 x AN-124 loads. The unit was then deployed to theatre using U.S. airlift.
[84] Airlift SOR, p. 4.
[85] Airlift SOR, p. 4.
[86] Airlift SOR, p. 5.

The situation with sealift is very similar to that of airlift. There are a large number of bulk cargo and container vessels available for hire. These vessels are suitable for transporting common military stores and containerized equipment. Where resources are more restrictive is in regards to Roll-On/Roll-Off ships, known as RoRos. These are the types of ships required to move the heavy armament, artillery and vehicles of land forces and are in short supply amongst Western navies. A report commissioned in December 2001 by the Western European Union (WEU) Defence Assembly titled "European Strategic Lift Capabilities", noted RoRos "…are limited in numbers and the number of RoRos worldwide is diminishing in favour of container ships. Severe difficulties on the chartering market in the event of a crisis must therefore be expected."[87] As an example of this situation the report points to the deployment of French troops to Kosovo in 1999. It states that for this movement of 4500 men and their equipment, the French required 12 commercial RoRos, flying seven different flags and that chartering difficulties resulted in the first ship not being available for loading until after 10 days.[88] The report concluded that this incident highlighted the inadequate commercial market, the proliferation of flags of convenience, the lack of national control and the need to use ships of 'doubtful quality'.[89]

Canada's experience in 2000 with the *GTS Katie* as noted earlier in this paper is another example of the shortcomings of the reliance on commercial means. A report by the United States General Accounting Office, which referred to the *GTS Katie* incident, highlights the security concern with the use of commercial assets. The report found, much the same as the WEU report, that there was a continued growth in the use of flags of convenience. This of course resulted in diminishing control over the shipping hired to transport U.S. military hardware. The report found that in 2001, approximately 43% of U.S. military overseas strategic movements were conducted by foreign owned

[87] Western European Union, Interim European Security and Defence Assembly, "European Strategic Lift Capabilities Report", December 2001, p. 11. Accessed at http://www.assemblyweu.org/en/documents/sessions_ordinaires/rpt/2001/1757.pdf on 16 March 2003.
[88] WEU Report, p. 5.
[89] WEU Report, p. 5.

commercial shipping.[90] The report went on to state, "there may be an increased risk of the equipment being tampered with, seized or destroyed…and an increased chance the weapons or equipment might be used against military or civilian targets".[91] In Canada's case the situation would be even more severe than in the United States due to our almost total reliance on the commercial market.

Another emerging trend in commercial industry has and will continue to affect the availability and cost of commercial resources. A study conducted by the U.S. Army's Training and Doctrine Command found that cost factors were driving the "…slack or excess capacity from all sectors of the global economy. Consequently, the opportunity or capability to surge…strategic movement may be limited unless prior planning accommodates the requirements".[92] Hence, unless financial commitments are made in advance to ensure the availability of a commercial lift resource, the availability of that resource must be suspect. Collectively, these shortcomings should motivate Canadian leaders to action in improving Canada's strategic lift resources, if they wish to remain an independent and relevant force on the world stage.

In this chapter we have reviewed the current assets available to Canada to conduct strategic movement. Clearly, the CF does not possess the resources required to deploy it's forces in a timely manner and must depend upon Allied and commercial means to deploy. However, we have also seen that there are a large number of limitations to this dependence on someone else to support Canada's military deployments. In the next chapter we will review this situation in detail and make the case in support of Canada possessing an adequate strategic lift capability as part of its foreign and defence policy goals.

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[90] "Foreign Ships Pose Security Risk for Defense Sealift", American Maritime Officer, On-Line Edition, January 2003. Accessed at http://www.amo-union.org/Newspaper/Morgue/1-2003/Sections/News/foreign.htm on 17 April 2003.
[91] Ibid, as quoted from GAO Report.
[92] Gick, p. 13, as quoted from United States Army Training and Doctrine Command, "Power Projection – The Impact of Technology on the Army After Next", Fort Monroe, VA, 2 December 1997, p. 12.

Chapter Three – The New World Order

The requirement for enhanced strategic lift capabilities is not a new topic within the CF. A cursory review of the final papers written by officers attending the Canadian Forces Command and Staff Course will show that for many years this topic has been one of the most popular.[93] Many strong arguments have been presented but to date the power of these written words have failed to generate any tangible results. So why write another paper? One good reason is that the requirement still exists. Another and more compelling reason, as we will see, is that the world has changed and the case for a credible strategic lift capability has grown ever stronger. The world's security environment is evolving and what security meant and how it was achieved ten years ago, even five years ago, was different than it is today.

This chapter will begin by examining this changing world, the impact of the new world order, and as a result the growing necessity for the rapid movement of strategic forces. It will then examine current Canadian foreign and defence policy objectives and show that without an enhanced strategic lift capability these goals are not obtainable. Lastly, in joining these two issues together the case will be made for the need of Canada to improve its current strategic lift capabilities.

The Changing World

In describing the current strategic environment, the DND Military Assessment for 2000 opens with the following statement, "one of the more striking yet difficult aspects of the past decade, has been the rapid and persistent pace of change."[94] With regards to the strategic landscape two events have had a profound impact in shaping the current world stage: the end of the Cold War, and the attacks of September 11, 2001. In April 1999, The Heads of States of the North Atlantic Treaty Organization (NATO) released the

[93] In the past twelve years 23 students have written on the subject of strategic lift for their final paper. Review of IRC records conducted on 4 April 2003.
[94] Department of National Defence, "Military Assessment 2000", by Dr Scot Robertson, Ottawa, 2002, p. 18.

Alliance's new Strategic Concept, which stated, "the dangers of the Cold War have given way to more promising, but also challenging prospects, to new opportunities and risks."[95] A month following the attacks of 9/11, the U.S. Government released the Department of Defense's Quadrennial Defense Review. The opening paragraph included the following excerpt, "…Americans died in their place of work. They died on American soil. They died not as combatants, but as innocent victims."[96] These two statements, one factual and the other emotional, serve to highlight the impact and importance of these two different yet related events on world decision makers. The consequences of these two events are still evolving, still even before the final effect is known; it has become clear that governments must amend their way of thinking about and responding to global security events.

For most of the last half of the twentieth century, "…the world was divided by a great struggle over ideas…"[97] This struggle resulted in the Cold War, the bipolar clash between the United States and the Soviet Union and their allies. During this period, these rivals generally controlled and managed intra-state violence in the hope of a regional victory and to help ensure conflicts were contained.[98] Western nations, including Canada, created NATO to counter the Soviet threat and tie North America to Europe. This conflict between democracy and communism, with an expected battlefield in Central Europe, became the focal point for Western defence and foreign policies.[99]

The Cold War ended with the collapse of the Soviet Union and what emerged was the uni-polar world dominated by the United States. Western nations having been focused on the Cold War, now expected a peace dividend and reduced their defence expenditures, presuming a period of greater stability would follow.[100] Many theories were proposed as

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[95] North Atlantic Treaty Organization, "NATO Strategic Concept", Washington, D.C., April 1999, p. 1. Accessed at http://www.pbs.org/newshour/bb/int…onal/nato50/strategic_concept.html on 16 March 2003.
[96] U.S. QDR, p. III.
[97] "The National Security Strategy of the United States of America", Sept 2002, p. 4. Accessed at http://usinfo.state.gov/topical/pol/terror/secstrat.htm on 19 March 2003.
[98] Colin McInnes and Nicholas Wheeler, eds, Dimensions of Western Military Intervention, Nicholas Wheeler, "The Political and Moral Limits of Western Military Intervention to Project Civilians in Danger", (London: Frank Cass Ltd, 2002), p. 2.
[99] Sloan, p. 153.
[100] DND "New Defence Policies", p. 2.

to the nature of this post-Cold War era but as the dawn of the new century came and went, correctly defining this period and its impact remained elusive.[101] However, what was clear with the end of the Cold War was the fact, that the international system was becoming more uncertain and unpredictable.[102] With the absence of two opposing super powers to manage the geo-strategic environment, many weak and vulnerable states began to fail, which ignited simmering conflicts.[103] This statement is borne out by the fact that in the 10 years following the end of this struggle, 1990-1999, the CF participated in a total of 46 multilateral security operations, while in the preceding decade that number was significantly lower.[104] Canada was not alone in responding to this new environment. During the same period U.S. Army deployments increased by a factor of 16,[105] while USAF missions witnessed an eightfold increase.[106]

This erratic period in the strategic environment continued until the terrorist attacks of September 11th. Although the possibility of such attacks had been considered for many years, as is often the case, it takes a catastrophic event to add clarity to unfamiliar circumstances. The attacks have helped to define the current security environment and provided a new focus to Western governments for defence and foreign policy matters.[107] Governments have recognized the need to transform their security capabilities and to invest in items, not deemed important a decade ago.[108] In fact, the attacks have become the defining moment in a new world order,[109]or what others have referred to as the "new world disorder".[110] They provide a vivid demonstration of the "…eroding distinction between national and international dimensions of security."[111] For the United States, this new setting has resulted in a new strategic security doctrine. "The National Security

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[101] Sloan, p. 147.
[102] Andrew Dorman et al, ed, The Changing Face of Military Power, Wyn Brown, "The Dimensions of Asymmetric Warfare", (Houndmills, Great Britain: Palgrave, 2002), p.17.
[103] Wheeler, p. 3.
[104] Jose

Strategy", released in September 2002, which outlines the concept of pre-emption, of taking the fight to the enemy before they bring the fight to you.[112] The strategy states, "in the new world we have entered, the only path to peace and security is the path of action."[113]

The case for this new order is reinforced by a number of emerging trends in the security landscape. These concerns existed before 9/11 but now can be seen more clearly in the aftermath of these events. They include: diminishing protection afforded by geographic distance; increasing threats from territories of weak and failing states; the growing strength and impact of non-state actors; and the proliferation of weapons of mass destruction (WMD).[114] It can be argued that these trends are the result of the 'globalization' of world affairs. This term has long been used in the framework of economic issues but has also recently emerged in the security context in an attempt to help define the contemporary security landscape.[115] Globalization is rooted in the use and spread of information and information technologies and the ability these means create for people around the world to participate in global events.[116] In a speech in Chicago in 1999 as part of the 50th anniversary of NATO, British Prime Minister Tony Blair referring to the impact of globalization stated, "…but globalization is not just economic, it is also a political and security phenomenon".[117]

Recent protests in Western nations during economic summits have highlighted the negative impact of globalization from an economic perspective. The same case of the 'haves' and the 'have nots' can be applied in a security context. By 2010 it is expected that 30% of the world's population will have access to the Internet, however, in the 70%

[112] "National Security Strategy", overview.
[113] Ibid, NSS, p. 2.
[114] U.S. QDR, p. 5-6.
[115] Huba Wass de Czege and Antulio Echevarria, "Toward a Strategy of Positive Ends", U.S. Army War College, September 2001, p. 2.
[116] Ibid, Wass de Czege, p. 2.
[117] Andrew Dorman et al, ed, The Changing Face of Military Power, Andrew Dorman, "British Defence Policy in the Post-Cold War Era: History Comes Full Circle?", (Houndmills, Great Britain: Palgrave, 2002), p. 178 as quoted from speech from Tony Blair 22 April 1999 in Chicago.

without access near half will never have made a phone call.[118] This difference between those connected to globalization and those marginalized by the same condition "…is likely to be a growing source of conflict in the near future."[119]

For Western democracies such as Canada, globalization impacts on the security climate in several ways. First it results in events in previously deemed unimportant and remote places, having an impact on security conditions in Western nations.[120] An uprising in one part of the world, largely covered by the media, may inspire others in different locations to follow suit. It may also have an impact on issues of critical importance to a nation, such as the impact on oil prices from events in the Middle East. Secondly, as humanitarian events are played out across TV screens there arises a call for action from the public.[121] This public response has in turn lead to a political reaction where Western governments are much more willing to deploy military forces in a sense of international obligation.[122] All of these circumstances converge towards a central theme: an expectation of immediate response. Through globalization the reaction time that governments and militaries have to determine their course of action in response to an incident, has been greatly reduced. In today's global society speed of action is a commodity and just as in business, security decisions must be made quickly and if forces are to be deployed, they must deploy rapidly if they expect to have a positive impact, especially a positive impact on the viewing and voting public. Still, there are numerous examples where the global community has failed to act quickly and the results have been disastrous. Rwanda, Yugoslavia and Siena Leone are but three of the most glaring failures, with tremendous costs in terms of both lives and resources.

These conditions in turn lead to the case for transformation, the need to alter military and security structures based on the Cold War, to the requirements of the current strategic

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[118] Christopher Coker, "Globalisation and Insecurity in the Twenty-first Century: NATO and the Management of Risk", (New York: Oxford University Press, 2002), p. 21.
[119] Coker, p. 21.
[120] Hans Binnerdijk, ed, Transforming America's Military, Sam Tangredi, "Assessing New Missions", (Washington D.C.: National Defense University Press, 2002), p. 7.
[121] Dorman, p. 181.
[122] Smith and Uttley, p. 3.

environment.[123] In recently released policy directives, militaries in Canada, Australia, the U.K. and the U.S. have all acknowledged the need for transformation.[124] At the Prague Summit in 2002, NATO leaders also recognized this need for transformation by announcing the formation of a new headquarters named 'Transformation Command'.[125] It will be the mission of this headquarters to change NATO military forces from a posture of static defence to a deployable force capable of meeting new strategic requirement.

A key aspect of this transformation is the continued evolution towards rapidly deployable forces.[126] The DND "Military Assessment for 2000" noted, "a hallmark of future operations will undoubtedly be the rapid fashion in which they flare up."[127] In a paper titled "New World, New Wars", Gregory Copley argues that static defense concepts have been relegated to the protection of national assets from threats that are less likely to occur.[128] He asserts that today the most critical factor is the ability for forces to respond to new threats and that "mobility is more vital than ever."[129] Although a conflict may commence far from another country, in today's strategic environment, that conflict can quickly land on another country's shores.[130] Rapid mobility is required to allow a country or coalition to respond quickly and contain a conflict before it can spread and have a direct impact on another country or region.[131] Three critical aspects of rapidly deployable forces are: high states of readiness; light and lethal equipment; and strategic lift for rapid movement.[132] This lift would include both sealift and airlift but in particular airlift "…since this is the only mode of transport that can react to global force-commitment needs within days."[133] Another factor is the requirement for nations, in order to retain full military credibility, not only to possess a credible force but a means to

[123] U.S. QDR, p. iv.
[124] Policy directives released since 2001 by all four countries have highlighted the need for transformation.
[125] NATO Press Release, "NATO After Prague". Accessed at http://www.nato.int/docu/0211prague/after_prague.pdf on 12 April 03.
[126] U.S. QDR, p. 26.
[127] DND "2000 Military Assessment", p. 37.
[128] Copley, p. 6.
[129] Copley, p. 6.
[130] Sloan, p. 153.
[131] "NATO Strategic Concept", p. 7.
[132] Sloan, p. 11.
[133] Sloan, p. 11.

rapidly deploy that force to far-flung theatres of operations.[134] Hence, there will be a growing requirement for governments and militaries that desire to play a meaningful role in global security operations, to possess a credible strategic lift capability.

We have seen that the world's strategic landscape has changed. New security threats require new defences and enhanced capabilities. The case to support the rapid deployment of forces has been made and by the fact that great distances across vast oceans, are likely involved, the case for strategic lift is supported. We will now examine Canada's current strategic security doctrine and consider the requirement of strategic lift to support these policies.

Canada's Position in the New World Order

When the Chretien Government was first elected in 1993, its principle focus was controlling the rising deficit and producing a balanced budget. Within this atmosphere the Government directed a review of defence and foreign policy. As a result two documents were produced, the "1994 Defence White Paper" and "Canada in the World" released in 1995. Within the opening paragraph of both documents the changing geo-strategic environment was highlighted and reference was made to the expectation that this change would continue at a rapid pace.[135] Yet almost ten years later, these two documents remain the principal direction on security matters and hence many of our policies and capabilities remain rooted in past requirements, and assumptions.

The central theme of the "1994 White Paper" was the retention of combat-capable forces, while living within fiscal realities. The need for combat forces was based on the current and future protection of Canadian sovereignty and on our role in collective defence.[136] "If the Canadian Forces are to play a role in collective security, it must remain a capable

[134] Chapman, p. 6.
[135] Department of National Defence, "1994 Defence White Paper", Ottawa, 1994, p. 3, and Department of Foreign Affairs and International Trade, "Canada in the World", Ottawa, 1995, p. 1.
[136] DND "1994 Defence White Paper", p. 12.

fighting force."[137] This role in global security was based on three principal objectives: to retain respect and influence aboard; to reflect our values and interests; and to protect Canada's ability to trade freely throughout the world.[138] Clearly, within the Government there was an understanding that despite the fiscal challenges, there was an intangible benefit to Canadian interests in having the CF engaged on a global basis. In turn, these interests would be put at risk if the CF could not participate in global security operations. "We cannot expect our political influence in global and regional security arrangements to be significantly out of proportion to our military contributions…"[139]

This commitment to global engagement is evident by the large number of diverse peace making and peace support operations to which the Government has committed the CF in the past ten years. Yugoslavia, Somalia, Haiti, Rwanda, Bosnia, East Timor, Kosovo, Ethiopia and Afghanistan have all witnessed the deployment of sizable Canadian contingents within their boundaries. Many of these missions have been challenging with short preparation timelines, where movement into theatre was a significant factor.

Similarly, "Canada and the World", the 1995 Department of Foreign Affairs and International Trade's (DFAIT) policy document, also recognizes this need to be globally engaged. In referring to what Canadians expect from the Government with regards to foreign policy, the document notes that Canadians "…want to remain actively involved in the world."[140] It also highlights their understanding that Canada's security and economic prosperity is directly related to global security issues.[141] In response the paper states that the Government will continue to exercise its influence to promote and protect Canada's interest in the world.[142] These interests include: a strong economy; protection of Canadian sovereignty; strong relationships with Allies, in particular the United States; and the maintenance of Canada's favourable reputation in the majority of the world's capitals.

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[137] DND "1994 Defence White Paper", p. 12.
[138] DND "1994 Defence White Paper", p. 1,12.
[139] DND "1994 Defence White Paper", p. 13.
[140] DFAIT "Canada in the World", p. 8.
[141] DFAIT "Canada in the World", p. 8.
[142] DFAIT "Canada in the World", p. 9.

These two documents remain the apparent or official cornerstone of our defence and foreign policies. Complete reviews and updates of these documents have not occurred and do not appear likely until the election of a new Prime Minister. However, both departments have taken action in an attempt to keep pace with the changes to the strategic environment. Within DFAIT, the latest strategic guidance released in 2002 is titled "Freedom From Fear: Canada's Foreign Policy for Human Security". This document concedes to the changing world and continues to promote Canadian engagement aboard, noting it "…has long been a central tenet of our foreign policy."[143] The policy further endorses the concept that Canada's security is inextricably linked to global security and that we must remain capable of contributing to international security on a variety of levels.[144]

For DND, the most recent strategic direction was released in 1999 and titled "Shaping the Future of the Canadian Forces: A Strategy for 2020". This document has a stated intent to provide a focus for defence decision-making and serves as a bridge between current policy and the future.[145] The document reviews the emerging strategic environment and highlights new threats and trends and recommits to Canada's intention to be globally engaged in order to protect Canadian interests and economic prosperity.[146] In response to these issues, Strategy 2020 identifies eight key strategic objectives that will guide and direct defence priorities into the next century. Several of the objectives would have an influence on strategic lift capabilities but Objective 4: Globally Deployable has the greatest potential impact.[147] It states in part that its goal is to " enhance the …global deployability and sustainability of our…forces."[148] Additionally it lists the requirement to "enhance our strategic airlift and sealift capability" as one of its five-year targets. Therefore, Strategy 2020 recognizes Canada's need and want to be globally engaged and

[143] Department of Foreign Affairs and International Trade, "Freedom From Fear: Canada's Foreign Policy for Human Security", Ottawa, 2002, forward.
[144] DFAIT "Freedom From Fear", forward.
[145] DND "Strategy 2020", Forward.
[146] DND "Strategy 2020", p. 4.
[147] DND "Strategy 2020", p. 9-11.
[148] DND "Strategy 2020", p. 10.

further acknowledges that in order to meet this objective there is a requirement to enhance our current strategic lift capabilities.

In summary, Canada's current foreign and defence policies support the concept of global engagement. These policies recognize the link between Canada's security and security affairs in the global context. In addition, it is clear that Canada's national interests, including its economy and the state of its relationships with its key allies are directly tied to this security environment and Canada's willingness to participate in securing it. Hence, in order to meet these policies the Canadian Forces must maintain the capability to be globally deployable. "Strategy 2020" further acknowledges the need to enhance our strategic lift capabilities in order to meet this global mandate. We will now examine in detail this requirement, bringing together the two themes of; rapid response to contain conflict and enhance security; and Canada's desire to remain globally engaged.

Canada's Need for Enhanced Strategic Lift

Within this chapter we have seen how the strategic landscape has changed greatly since the end of the Cold War. The terrorist attacks of 9/11 have further altered this setting. One requirement that has emerged within this backdrop is the need for the rapid deployment of forces and in today's context that movement requires strategic lift. As well, the case has been made that the Canadian Government identifies the need for Canada to remain globally engaged and that Canada's well being is directly linked to the international security environment. In previous chapters it has been noted that the Canadian Forces lacks significant strategic lift assets and the perils of depending upon third parties to provide this service have been highlighted. Additionally, it is clear that other countries that share our concern for democracy and multilateralism have noted these events and taken steps to enhance their strategic lift. The Canadian Forces has clearly noted this requirement in Strategy 2020 and it is also likely that the Government is aware of this need yet has been hesitate to commit the required funding given the competing demands for these limited funds.

Those close to the Government have noted the requirement. The House of Commons Standing Committee on National Defence and Veterans Affairs (SCONDVA) chaired by Liberal David Pratt is well aware of the need. In a May 2002 report entitled "Facing Our Responsibilities: The State of Readiness of the Canadian Forces", the committee highlighted the need for improved sealift and airlift.[149] The report cited many of the same circumstances as detailed in this paper; the changing world environment, the necessity of speed to contain conflict, the achievement of Canadian foreign policy, the risks associated with dependence on third-party assets, and the real and perceived concern over sovereignty in making the case for strategic lift.[150] An intriguing aspect of the report is the notion that Canada only needs to hold a limited strategic lift capability so as not to be "…completely at the mercy of the vagaries..." of third parties.[151] In other words, Canada should possess enough lift to deploy critical resources in a timely manner, while still using the commercial market or willing allies for a majority of its movement. Thus, if third parties cannot or will not support Canadian missions, Canada can still participant and exert its sovereignty, while not bankrupting the CF's capital program on the acquisition of a large number of lift resources. This concept would appear to hold merit and will be examined as a possible course of action in the next chapter.

There would of course be detractors to this position due to the high costs of these assets. Their position would state that Canada has successfully relied upon her allies and commercial resources to deploy the CF for a number of years. Why change now when our military budget is under constant pressure? The argument is not without merit as the CF faces a number of difficult decisions. However, as has been shown above, the world has changed. If the Canadian Government and the Canadian people, wish to continue to play a role in regional and global security, which in turns assists in providing domestic security, then they must maintain a capable and deployable military. Today that deployability means strategic lift. The perils of total dependence on third-party resources have been shown. We will continue to employ this means to deploy the majority of our assets but as a sovereign nation we must posses a basic lift capability in order to control

[149] SCONDVA, p. 47,49.
[150] SCONDVA, p. 47-51.
[151] SCONDVA, p. 48.

our own destiny. To afford this capability, others may need to be reduced or eliminated. That will be the price of transformation.

In its concluding paragraphs, the DND Military Assessment for 2002 states that in today's environment "… a responsive force of high readiness capable of deploying great distances to both foreign and domestic theatres of operation likely best serves national interests."[152] This sentence, quoted from the most recent DND strategic guidance, well summarizes the need for the strategic movement of forces in today's security landscape. This chapter has provided the details. If the Canadian Government wishes to continue to play a role on the world stage and use the CF as one of the means at its disposal, in the current security milieu, where rapid deployment is critical for containment, then improved strategic lift resources are required. We will now examine two of the options available to provide this capability and review possible funding scenarios within the current funding envelope.

[152] DND "Military Assessment 2002", p. 26.

Chapter Four – Paying the Price

Now that the case for enhanced strategic lift has been made, we face the challenge of obtaining this capability within current fiscal realities. Presently, both projects, the Strategic Airlift Capability and the Afloat Logistics and Sealift Capability, are identified on the Department's Capital Equipment Priority List.[153] However, with several costly programs receiving a higher priority, it may be several years before either of these programs reaches operational status. As long as a project lingers on the list there remains the possibility that the project will never be funded or that a new project will be given a higher priority. This chapter will begin by exploring the current financial situation within the Department of National Defence. It will then explore two possible options in providing lift capability to the CF. With regards to sealift, a lease agreement with Canadian industry will be reviewed, while for airlift, resource pooling at the NATO level will be the examined option. Given the limited possibilities of large defence spending increases in the near future, it is likely that a vivid imagination coupled with strong determination will be required on the part of DND leaders and planners to bring these projects to fruition. Let's imagine.

Fiscal Reality

Recent concerns over the state of the DND budget have centred on the fact that there is an increasing decline in the percentage of the funds allocated to capital expenditures. This spending is used to replace aging equipment and infrastructure and to provide new equipment to the CF. It would be this section of the budget that would be used to provide new and improved lift capabilities. The Defence Planning Guidance for FY 2001/02 (DPG 2001)[154] highlighted this shortcoming in capital funding and stated that a significant portion of CF equipment was facing "rust-out".[155] This has been an on-going issue within the Department as leadership responded to severe budget reductions over successive years. In an attempt to turn the tide, Strategy 2020 set a target of 23% of the

[153] Department of National Defence, "Defence Planning Guide 2001", Ottawa, 2000, p. 2-16.
[154] Note that DPG 2001 was the last DPG issued. DND is in the process of changing defence planning and that the guidance from DPG 2001 remains in effect until the new process is finalized later this year.
[155] DND "DPG 2001", p. 1-3.

DND budget for capital requirements.[156] Yet just two months after the release of Strategy 2020, DPG 2000 identified a planned capital expenditure of only15.4% of the total budget.[157]

This failure to follow direction is not an indication of the poor ability of DND members to obey orders but a sign of the extreme pressure being placed on the DND budget. For many years the department has been 'robbing Peter to buy Paul' in the face of governmental reductions. In this case Peter has been the Department's capital budget. As budgets were reduced and personnel cost increased to meet much needed Quality of Life initiatives, the capital budget was reduced and the long-term objectives were sacrificed against short-term needs. In an interview with Jane's Defence Weekly in 2002, Major-General Doug Dempster, Director General Strategic Planning stated that human resources issues had become the critical priority.[158] "As a result we've been forced to defer some of our capital programme."[159] The impact of this tactic has been substantial. As an example we will examine the FY 2000/01 budget. With a planned capital expenditure of 15.4% within a budget of $10.5 billion, the difference between this and the stated target of 23% is $798 million in capital commitments. Enough, if available over a four year period, to completely fund both the sealift and airlift projects.[160] The fact that these and other projects are delayed, means existing equipment deteriorates and operational capability is reduced. As time passes, there is a huge accumulation of requirements that can never be satisfied. Meanwhile, operation and maintenance (O&M) costs increase to meet the needs to maintain aging equipment, further reducing funds available for capital projects.

Although the Federal Government has provided recent increases to the Department's budget, these funds have chiefly been used to meet current obligations, such as funding operations, including the commitment to the War on Terrorism. As a result, there has

[156] DND "Strategy 2020", p. 6.
[157] Department of National Defence, "Defence Planning Guidance 2000", Ottawa, 1999, p. 4-2.
[158] Sharon Hobson, "Canada Faces Some Tough Choices in Budget Crunch", Jane's Defence Weekly, 17 July 2002. Accessed at wyiwyg://98/http://www4.janes.com on 14 April 2003.
[159] Ibid, Hobson.
[160] DND "DPG 2001", 2-16. Total for both projects is estimated at $3 billion.

been little impact on the capital budget. FY 2001/02 had a planned capital expenditure of 19.4%, still well short of the 23% target.[161] Even more concerning is the fact that the actual percentage spent during that year was only 18.0%.[162]

Certainly changes are needed if the CF wishes to remain relevant and interoperable with its allies and if budgets are not likely to increase then the case for transformation is made stronger. In his FY 2001-2002 Annual Report the Chief of the Defence Staff (CDS), General Ray Henault made the need for transformation the central theme of his report. Titled "At a Crossroads" the report highlights the need to adjust the CF to the new global requirements. It states, "…we have reached a critical point in our history and the time has come to transform the post-Cold War structure of the CF into one that better satisfies the current and future capability requirements."[163] With particular reference to strategic lift the report notes both the need for and the lack of current capabilities. In regards to improving this capability the report makes the connection between acquiring lift assets and the need to reduce in other areas stating the CF is considering, "…the potential trade-offs required to support investment…" in strategic lift.[164] This would indicate a strong understanding of the need for transformation and in particular the need to improve CF strategic lift capabilities. What remains less clear is whether the Government understands or has the will to implement the adjustments. Plainly, within this setting, original concepts not normally supported within government acquisition regulations will have to be considered if either strategic lift project hopes to reach operational status.

All, especially those within military structures that will face decline under this movement, will not embrace the rationale for transformation. They would continue to push for a combat capability across a wide spectrum, with strategic lift being a lower priority. However, this position does not match current reality. As Canada lacks a credible high-intensity capability, it is not requested by our Allies and our Government

[161] DND "DPG 2001", 4-2. From table 4-2, capital (2.162B)/total (11.108)=19.4%.
[162] Department of National Defence, "Departmental Performance Report 2001-2002", Ottawa, November 2002, p. 62. Accessed at http://www.vcds.forces.gc.ca/dgsp/dfppc/pubs/dpr/DPR01-02.pdf on 18 April 2003.
[163] Department of National Defence, "At a Crossroads", 2001-2002 CDS Report, Ottawa, 2002, p. 13.
[164] "At a Crossroads", p. 13.

chooses to not deploy it. Instead both parties seek our professional and proven capabilities in the low and medium ends of the conflict spectrum. Additionally, as has been shown in the current strategic landscape, the quick and independent movement of these assets greatly increases their effectiveness. Hence, when it comes time to make difficult choices, it should be these capabilities along with the means to deploy these assets that receive the highest priority.

"Focusing on Opportunities"

The sealift shortfall offers a unique and what should be an appealing opportunity to the federal government. It would allow for the combination of a number of Government objectives into one project thus greatly improving the strategic, economic and political benefits from its implementation. Currently the Canadian shipbuilding industry is facing severe challenges. These issues stem from both productivity impediments and foreign competition advantages, gained mainly through government subsidies.[165] The industry has long fought for action by the Federal Government to improve their situation and in June 2001 the Government released an action plan titled "Focusing on Opportunities". The report details the plight of the industry and recommends several ways to remedy the situation. The main benefit the report offers to the industry is a subsidized financing package available to improve their competitive edge against foreign shipyards. In early 2003 the Minister of Industry Allan Rock further enhanced this financing package.[166] The program is slated to continue until March 2006.

It is this program that provides the opportunity to both the Government and DND. The Government would gain considerable political benefit tying this program to the strategic sealift requirement. First, they would be seen as improving Canada's defence capabilities at a time when there is growing domestic support and increasing foreign pressure to do

[165] Department of Industry, "Focusing on Opportunities", Ottawa, 2001, Minister's Message.
[166] Department of Industry Press Release, "Minister Rock Announces Improvements to the Structured Financing Facility for Shipbuilding", Ottawa, 3 March 2003. Accessed at http://www.ic.gc.ca/cmb/welcomeic.nsf/cdd9dc973c4bf6bc852564ca006418a0/85256a220056c2a485256cde00740191!OpenDocument on 9 April 2003.

just that.[167] Secondly, they would be assisting an industry with a long and proud Canadian tradition and in need of support. Thirdly, they could award the main contract to an economically depressed area of the country but still have the work spread throughout the country thus gaining considerable political mileage.

For DND the benefit would be to avoid a hefty capital expenditure that would commit a large percentage of the capital program for a number of years. Details of the agreement would need to be negotiated in the best interest of all parties but one possible scenario could see DND sign a 20-year lease for the ships with an option to buy the ships at the end of the contract. Although in the end all the funding would be coming from the same pot, that of the federal government, it would appear that these circumstances offer a win-win-win situation for all involved.

For airlift the possibility of a lease arrangement also exists. The United Kingdom has recently entered into a lease agreement with Boeing for 4 x C-17s.[168] Given the poor state of the global airline industry, Boeing and Airbus may both be willing to offer attractive lease packages in order to maintain employees and production facilities in operation. However, the most eye-catching alternative for the airlift requirement may be the resource-pooling concept currently being considered by NATO. This model would be similar to the highly successful AWACS program of which Canada has been a key contributor.[169] Following the Prague NATO Summit in November 2002, NATO Ministers announced a number of new initiatives, including improving strategic lift capabilities.[170] It is interesting to note that NATO, the most visible by-product of the

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[167] National Post article, 3 Jan 2003 by Robert Fife, "Most Want Surplus Spent on Medicare, Defence". Accessed at http://www.pollara.ca/new/LIBRARY/SURVEYS/spending.htm on 12 April 2003 and Speech by Paul Cellucci, U.S. Ambassador to Canada, "North American Security" to the Canadian Defence Industries Association, 14 February 2002, Ottawa. Accessed at http://www.usembassycanada.gov/content/content.asp?section=embconsul&document=cellucci_021402 on 12 April 2003.

[168] Boeing News Release 28 June 2000, "Boeing Begins Assembly on United Kingdom C-17". Accessed at http://www.boeing.com/news/releases/2000/news_release_000628o.htm on 15 April 2003.

[169] Department of Foreign Affairs and International Trade website, "Canada's Contribution to NATO". Accessed at http://www.dfait-maeci.gc.ca/foreign_policy/nato/nato_cnd_contribution-en.asp on 12 April 2003.

[170] NATO Press Release, "NATO After Prague". Accessed at http://www.nato.int/docu/0211prague/after_prague.pdf on 12 April 2003.

Cold War, has recognized the impact of the new strategic environment. At Prague, its leaders endorsed the move away from heavy static forces to a more nimble and deployable force in need of improved strategic lift.[171]

On the subject of strategic airlift, Germany has taken the lead role and along with nine other nations including Canada, will examine resource-pooling of lift assets. Negotiations on this matter will be difficult, as with most NATO debates, national interests will play a large role. European nations will be pushing for an Airbus airframe based on European airfields, while the U.S., an outside but influential player, will be seeking a made in America solution. Canada will be pushing to base assets in North America, stating that this could serve as a new link across the Atlantic. Canada will also seek to allow for the use of these assets for non-NATO missions. The benefit to Canada from this arrangement is mainly economic. Pooling assets should reduce the requirements and the initial costs, as well as the on-going operating costs. For DND it provides 'capital avoidance', meaning the capital budget will not be as committed as it would be if DND went it alone on this project.

One critical aspect of employing this means of providing strategic airlift will be control. Canada does not want to have to seek NATO approval, which will soon involve 27 countries, every time it wants to use an aircraft for a non-NATO mission. If one of these countries opposes Canada's plans to participate in a particular mission, then it could stop the use of these aircraft for that mission. To guarantee the desired level of nation control, the agreement may have to identify national assets amongst the pooled resources. This option may cost more in the end but Canada must ensure this level of control in order to project its sovereignty.

It is not a goal of this paper to determine the best way to address Canada's strategic lift shortfall. The preceding paragraphs have simply offered two of many possible solutions. This chapter has shown that the Canadian Forces face many difficult decisions. The need for strategic lift is well recognized but how to pay for this capability has yet to be

[171] "NATO After Prague".

determined. However, if the premise of this paper is correct and the author certainly believes it is, then a solution must be found. Protecting old competencies, not affordable or desired, in the new security environment is not an option. These capabilities may need to be cut or reduced but these are the type of hard decisions expected of the senior leadership of quality militaries. In 500 B.C. Chinese military strategist Sun Tzu wrote, "…he who occupies the field of battle first…is at ease; he who comes later…is weary."[172] Over twenty-five hundred years later this advice still rings true. Although the context would be different today, the limited strategic assets currently available to the CF, likely ensures the Canadian Forces will be late and weary where ever they are ordered to deploy.

[172] Sun Tzu, The Art of War, (New York: Oxford University Press, 1963), p. 96.

Conclusions

Well its time to go to the next game! In February 2003, the Federal Government announced that Canada would act as the lead nation and deploy up to 1800 personnel to Afghanistan to support the International Security Assistance Force (ISAF) mission in Kabul.[173] Since that time planners at all levels within National Defence Headquarters (NDHQ) have no doubt been scrambling to work out the details to support this demanding mission. Certainly one of the most difficult issues has been the implementation of the movement plan to this land-locked country. With a high percentage of U.S. and commercial assets engaged in the Middle East, sourcing lift assets will be a challenge and whatever assets are available will likely be charging an exorbitant fee. Getting to the mission area may in fact be the biggest test the force will face. After reading this paper, this situation should not come as a surprise.

Throughout history, strategic movement of forces has been a sufficient factor to success on the battlefield. It continues to play a vital role today. Yet, this paper has shown that Canada lacks sufficient lift resources and has mainly relied upon U.S. and commercial means to deploy CF elements since the end of the Cold War. We have also seen that amongst NATO nations there is an over-dependence on U.S. resources, which appear to be plentiful to the uninformed but are lacking when it comes to supporting the vast needs of U.S. forces. The fallacies of the commercial industry have also been shown. The key contributors to military lift, long-range, out-sized cargo aircraft and Ro-Ro shipping are in short supply and high demand. It is clear that the commercial industry would have extreme difficulty accommodating surge activities and that countries such as Canada, without guaranteed access, may find it impossible to secure required lift.

Within this backdrop the strategic security environment remains unsettled. The end of the Cold War and the events of 9/11, continue to impact on and reshape the global landscape. Globalization has brought the world together and greatly reduced reaction

[173] Department of National Defence News Release on Canadian Involvement in ISAF. Accessed at http://www.cds.forces.gc.ca/pubs/communiques/18-02-2003_e.asp on 18 April 2003.

times. It has also resulted in a new willingness to commit forces abroad in order to restore peace and security, while assisting in containing regional conflicts. These conditions lead to the case for transformation, of restructuring Western militaries from their Cold War posture, to the new post 9/11 environment. There is a growing tendency towards lighter more rapidly deployable forces in order to effectively participate in this collective security. In tangent with these changes is the growing dependence on strategic lift to quickly deploy and sustain these forces.

Within these conditions, the Canadian Government has continued a policy of global engagement. There appears to be a clear understanding within the Government that Canada's security and national interests are best served by assisting in the maintenance of global security. Canada's economic well being, security, relations with her Allies and world standing are all directly impacted by the ability of the CF to participate in global security operations. In the past ten years the CF has been tasked to participate in a large number of varied and complex missions. One constant in all these missions has been the challenge to strategically deployed forces with extremely limited lift assets. With large contingents presently deployed in Bosnia, the Middle East and the planned mission to Afghanistan, the concept of global engagement and its influence on the CF is not likely to change in the conceivable future. However, the Government continues to expect that this service can be provided on a shoestring budget.

The Canadian Forces remain under-funded for the tasks they are assigned to perform. Any commitment to address the strategic lift shortfall will face financial obstacles. The DND capital budget is severely challenged and difficult choices will need to be made in the near future if the CF wishes to maintain a broad capability. Unique acquisition methods will need to be examined including leasing from commercial sources and resource-pooling with other nations. The key consideration appears to be, to somehow balance the pressing need against bankrupting the capital budget for years to come.

This paper has demonstrated the need for improved strategic lift assets in order to allow the Canadian Forces to meet Government assigned commitments and to further our

national interests. In today's strategic environment, rapid deployability is a decisive point to the success of any mission. If the Canadian Government wishes to remain globally engaged and employed the CF as a means to accomplish this policy, then they must commit to improving Canada's strategic lift capacity. Much like the growing family's recognition of emerging transportation trends and committing to their first minivan, even under considerable financial pressure, it is time for the Canadian Government to concede to the urgent need for improved strategic lift capabilities for its Forces, even in the face of difficult fiscal constraints.

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